

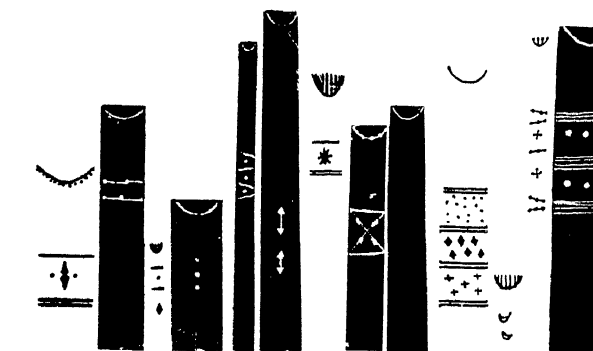


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THE UNIVERSITY OF MISSOURI BULLETIN

VOLUME 29, NUMBER 22

Library Series No. 15

150

# HISTORY OF THE LIBRARY

University of Missouri

by

HENRY ORMAL SEVERANCE  
*Librarian*

With a Foreword by  
STRATTON DULUTH BROOKS  
*President*  
*University of Missouri*



ISSUED FOUR TIMES MONTHLY. ENTERED AS SECOND-CLASS MATTER AT THE  
POSTOFFICE AT COLUMBIA, MISSOURI—1500

JUNE 7, 1928



# HISTORY *of the* LIBRARY UNIVERSITY *of* MISSOURI

by

HENRY ORMAL SEVERANCE  
*Librarian*

Author of

Guide to the Periodicals and Serials of  
the United States and Canada; Facilities  
and Resources of the Missouri Library  
for Graduate Work.

With a foreword by

STRATTON DULUTH BROOKS  
*President*  
University of Missouri

COLUMBIA  
UNIVERSITY *of* MISSOURI

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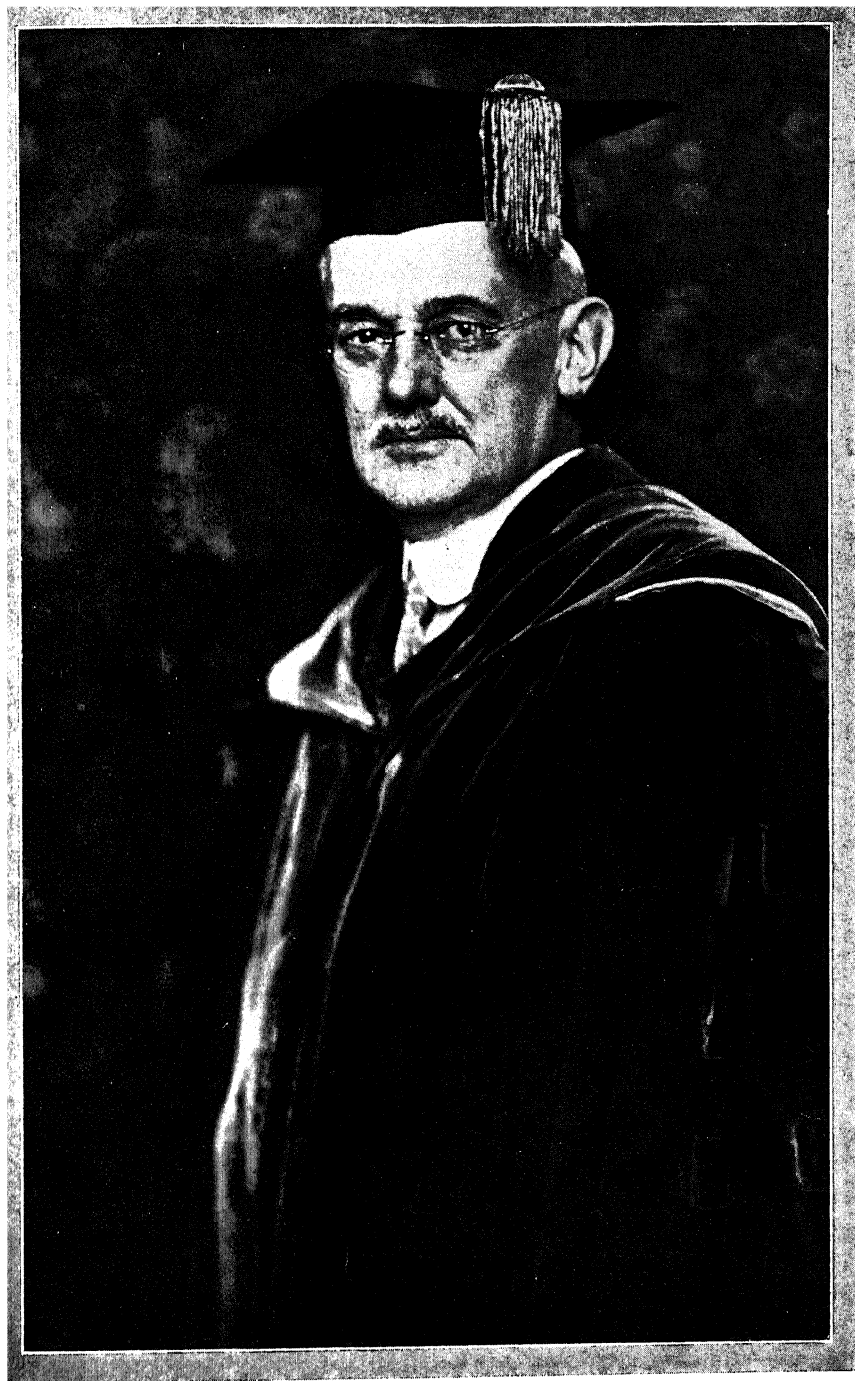


HISTORY  
of the  
UNIVERSITY LIBRARY



This study is dedicated to Doctor Stratton Duluth Brooks, President, University of Missouri, under whose administration the Library has received its largest appropriations.





STRATTON DULUTH BROOKS, President  
University of Missouri



## FOREWORD

A record of the heartbeats of a man would cover his entire life. In like manner, the history of a university library would cover the entire life of the university, because the library is the heart of the university. Without a library wisely selected and constantly used, there could be no real university. He who would truly know a university, must be familiar not only with what happens in classrooms and laboratories, but must find out whether the inspiration of these classrooms and laboratories has led the students to an intelligent and extensive use of the library.

A handwritten signature in cursive script, reading "Shannon Brooks". The signature is written in black ink and is positioned in the lower right quadrant of the page.





## PREFACE

Charles Kendall Adams once said that "a great library has always been held to be a necessary part of a great university". The growth of the library has depended upon the growth of the University. Scant appropriations for the University meant either a small amount or none for the library. The University received its first state appropriation in 1867 after Doctor Read became President. From that time on the University has received help from the State, and the library has received regular biennial appropriations since 1900. The nucleus of the present collection of books was the two hundred or more volumes saved from the fire of 1892. President Richard Henry Jesse, through whose efforts the University attained a rank equal to other State Universities, was an ardent supporter of the library. From 1900 to the close of his administration the library received generous State appropriations.

During the administration of President Albert Ross Hill the library developed more rapidly. The appropriations were more liberal, the staff was largely increased, the service became more efficient, the annual accessions were increased and the new library building became a reality. In 1923 while Doctor John Carleton Jones was President, the General Assembly appropriated the largest maintenance fund in the history of the University. This enabled the Board of Curators, upon the recommendation of Doctor Stratton Duluth Brooks, President of the University, to make a larger appropriation for the library for 1924 than it had ever received before for any one year—thirty thousand dollars.

The story of the library was first written in 1910 but so many facts have been found since from the records and so much information obtained from those professors who have been connected with the University for many years that it has been necessary to rewrite the history.

The material has been obtained from manuscript and printed records indicated in the "List of works consulted" in the appendix and from the lips of men who have been associated with the University and the library for years.

I am indebted to former librarians for much information which could not be found in official records: and especially to Scott Hayes for the description and diagram of the library room as it was in 1871, to the late Doctor Paul Schweitzer who was connected with the University from 1872 to 1911, to the late Doctor William George Brown, who was a member of the library committee for many years and editor of the University of Missouri studies, for many facts bearing on the his-

tory of the library and for a description of the Library book plate.

I am under great obligation to the late Doctor Richard Henry Jesse, President of the University from 1891 to 1911, for the inside history of the University and the library during his presidency.

HENRY ORMAL SEVERANCE

January 1928

## CONTENTS

Foreword by Stratton Duluth Brooks, President, University of Missouri.....	11
Preface.....	13
Part I. The first fifty years of the library 1842-1892.....	17
1. Growth.....	19
2. Administration.....	24
3. Circulation, housing and affiliated libraries.....	33
Part II. 1892 to 1927.....	43
1. The forward look.....	45
2. Acquisitions.....	49
3. Circulation.....	53
4. Catalog.....	57
5. Branch libraries.....	60
6. The library staff.....	68
7. Housing the library.....	68
8. Library war service.....	74
9. Instruction in bibliography and library science.....	76
Appendix.....	81
1. Librarians of the University.....	83
2. Assistants in the library.....	83
3. List of books presented by Dr. W. K. Bixby.....	88
4. Library war service roll.....	89
5. List of works consulted.....	90
Index.....	94

## ILLUSTRATIONS

The Library erected 1914.....	Frontispiece
Stratton Duluth Brooks.....	9
John Hiram Lathrop.....	23
Bolivar Stark Head.....	23
Joseph Granville Norwood.....	27
Scott Hayes.....	27
Joseph Henry Drummond.....	31
John Watson Monser.....	31
The Library 1871.....	35
The Library 1887.....	37
Walter King Stone.....	46
James Thayer Gerould.....	46
Henry Ormal Severance.....	48
The Library Book Plate.....	59
Agricultural, Engineering and Law Reading Rooms 1911.....	61
Agricultural Library 1925.....	63
Journalism Library 1925.....	65
Law Library 1927.....	65
Medical Library 1926.....	67
Stack Room 1907.....	69
Reading Room and Stacks 1907.....	71
Reading Room 1911.....	71
West Wing of Jesse Hall where the Library was Housed 1895-1915 . . .	73
Entrance Lobby and East Stairway.....	75
Second Floor Plans of the New Library.....	77
Main Reading Room.....	78
Delivery Desk and Reserved Book Stacks.....	78
Where the Books are Cataloged.....	80
Library Extension Map.....	91
Graphs—Growth and Circulation.....	92-93

HISTORY  
of the  
UNIVERSITY OF MISSOURI  
LIBRARY

PART I  
FIRST FIFTY YEARS—1842-1892



## 1. GROWTH

In the early days of the American universities a small collection of books met all needs. A hundred years ago Harvard had about 5000 volumes, Yale 8000, Brown 3000. The courses of instruction in these institutions in those days were few, as a four year course of prescribed work was laid out for the student, and the text-book for the course in Greek literature or Roman antiquities could be supplemented by two or three histories, and all the requirements would be met. Similar conditions existed in the University of Missouri. The curriculum underwent few changes in the first fifty years of its existence. The courses like those in Harvard and Yale were Text-book courses, consequently the lack of a good library was not greatly felt as it would be at the present time, when the library is the laboratory for the literary, historical, and social science departments. These facts offer one explanation for the lack of early library facilities. Another factor was the scarcity of funds for the support of the University which had to struggle for existence, often becoming financially embarrassed, and even closing its doors for a few months. Considering the resources of the University the library has been quite generously supported. The founding of the library followed closely upon the establishment of the University.

The act of the General Assembly of Missouri establishing the University was approved February 11, 1839. Later in the year, June 24, Columbia was selected as the home of the University, because Columbia and Boone County had subscribed a larger bonus for its location there than any other of the central counties of the state. The bonus in land and money amounted to one hundred seventeen thousand nine hundred dollars. This is known as the "subscription fund" of the University. As soon as the location had been settled, Columbia College, which had been established in Columbia a few years before, was merged into the University, and the brick building, the property of the College, became the home of the University in 1840. In October of that year John Hiram Lathrop, a graduate of Yale University, a professor in Hamilton College, was elected first president of the University, and entered upon the duties of his office in March, 1841. Courses of instruction in academic work were arranged immediately, and the University opened April 14, 1841. In July following the opening the Board of Curators made the first provision for a library. The Board<sup>1</sup> borrowed one thousand dollars from the "subscription fund" and placed it in the hands of the President for the purchase of books and apparatus for the use of the University. With this fund apparatus was purchased and subscriptions were given to eight

1. Proceedings of the Board of Curators, July 7, 1841.

periodicals: Blackwoods, Edinburgh review, Foreign quarterly, London quarterly, North American, but there is no record of any book purchases. The University was a local institution and received its support from two sources: the Seminary fund which accrued from the proceeds of the sale of two townships of land given by the United States government to the State of Missouri for the use of a seminary of learning; and, the tuition fee of thirty dollars a year from every student. The course of collegiate instruction in 1843 was divided into five parts or departments.<sup>2</sup> For the support of each department, five dollars a student was appropriated annually from the tuition fees, and one-sixth of the income of the Seminary fund, provided the one-sixth did not exceed eight hundred thirty three dollars a year. This income for the respective departments was applied first to the payment of salary and arrearages due the professors, and the balance, if any, was to be "applied to the purchase of books and apparatus under the direction of the professor, for the uses of his department."<sup>3</sup> In the following year, the appropriation was reduced to one-tenth of the Seminary fund and one-sixth of the income from fees. The fund evidently yielded no money for books as there were none purchased until 1849 when the Board made a specific appropriation of \$1250 for the purchase of books upon the urgent recommendation of President Lathrop.<sup>4</sup>

President Lathrop believed that a library is an essential part of a University and he was untiring in his efforts to build up a collection of books which would be adequate to the needs of the University and in keeping with the other means of instruction which the University offered to students.

He solicited gifts for the library from the state and federal governments, from institutions, and from individuals. The first gift of importance was a complete set of Livy's History of Rome presented in 1842 by William G. Minor, member of the General Assembly, afterwards adjutant-General of the State, which therefore became the nucleus of the University library.

Three years later a small collection of books, some rare and valuable, was presented to the Library by the trustees of Bonne Femme College, an institution established some years preceding the date of its incorpora-

2. The course of collegiate instruction was divided into five parts or departments.
  1. Ethics, history, civil polity and political economy.
  2. Metaphysics, logic, rhetoric, and English literature.
  3. Ancient and modern languages and literature.
  4. Mathematics, natural philosophy and astronomy.
  5. Chemistry, mineralogy, geology, botany, natural history and physiology.
3. Proceedings of the Board of Curators, May 16, 1843.
4. Proceedings of the Board of Curators, January 29, 1849.



tion, 1838, and located six miles south of Columbia, where the Bonne Femme Baptist Church now stands.

President Lathrop's reports indicate that the library received twenty-six volumes from the Secretary of State of Missouri and seven scientific works of importance from the Secretary of the State of Massachusetts, in addition to the publications of the Federal government. There were no depository libraries for government documents at this time. The Board of Curators in 1842 solicited the services of the Honorable Lewis Fields Linn, United States Senator from Missouri, to procure such government documents as the University was entitled to receive by Acts of Congress.

When the Board of Curators made the substantial appropriation of \$1250 for the library, the amount was placed at the disposal of President Lathrop for purchases. He put the money into his pocket, went to St. Louis, purchased books to the amount of \$350 which were in stock, and placed orders for foreign books and those which had to be purchased east of the Mississippi with John Halsall, a bookseller of St. Louis. He deposited \$900 with which to pay for them with William Nesbot and Company, bankers. Then when the President was about to realize his ambition to secure an adequate library for the University, his hopes were dashed by a bank robbery which cleaned out the vaults of the Bank. The entire amount, however, was recovered and finally used for the purchase of books and periodicals.<sup>5</sup>

Up to the date of his resignation September 3, 1849, the President gave the library his personal attention. Now that the purchase had been made, and that the library was receiving a considerable number of volumes by gifts the President recommended to the Board more equipment, such as shelving, tables and chairs to be added to the room and added: "As the Library is the appropriate room for the meetings of the Board of Curators, its furniture should be adapted also". His further recommendation that some member of the Faculty should be appointed librarian was approved.<sup>6</sup>

Doctor James Shannon who succeeded Doctor Lathrop as President of the University was, like his predecessor, an ardent supporter of the library. He urged liberal appropriations for the library and secured during his administration 1851-56, \$1117.07 for books of which only three hundred was spent.<sup>7</sup> He told the Board of Curators: "It is a disgrace to the institution that we have little more than the name of a

5. Proceedings of the Board of Curators, May 16, 1849.

6. Proceedings of the Board of Curators, September 6, 1845.

7. Proceedings of the Board of Curators, July 1, 1854.

library, and such a state of things should by no means be suffered to continue",<sup>8</sup>

The library did not fare well under President William Wilson Hudson's administration, 1856-59. Professor Hudson was a scientist and held the chair of mathematics, natural science, and astronomy when he was elected President. He wrote, "A library constitutes a secondary want in literary institutions. The want which is primary and whose pressure is daily felt in the departments of exact and natural science is apparatus".<sup>9</sup> The Union Literary and the Athenaeum societies had each assembled a small library of general literature which was available for student use. The President proposed to make use of the libraries of the Athenaeum and Union Literary societies for general literature and to spend for laboratory equipment all funds which could be spared from the necessary expenses of the University.

After President Hudson, came the dreary period of the Civil War, 1861-1865, when the University barely survived. The income from the Seminary fund was small, the income from fees was nil. "So many students responded to the "call to arms" that the attendance was reduced to forty in 1862. The income was about \$7000 with a deficit of \$20,000. The Board of Curators therefore on March 20, 1862, "discontinued all offices in the University—President, professors, tutors, and closed the University."<sup>10</sup>

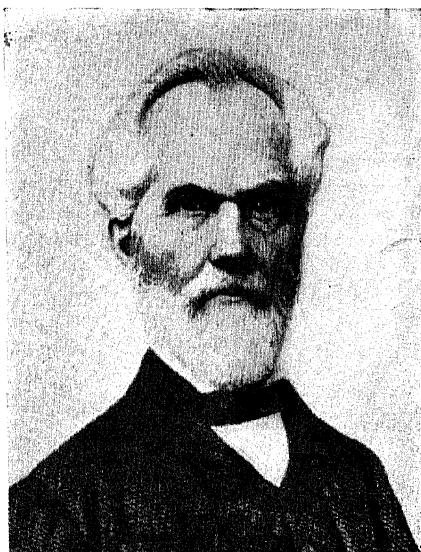
It was opened again November 24, 1862 in charge of an Executive Committee. The real purpose for reopening was to secure the location of the College of Agriculture in Columbia as a division of the University. Congress passed a bill, approved July 2, 1862 granting 330,000 acres of land to the State of Missouri for an agricultural college. The General Assembly which should meet in January 1863 would consider the acceptance and disposition of the grant.

After the close of the war, Doctor Daniel Read of the University of Wisconsin was elected president of the University of Missouri, August 29, 1866, but he declined to accept the position unless the state should come to the support of the University which had an income of \$7000 with an indebtedness of \$20,000. The General Assembly responded on March 11, 1867, granted the University its first state appropriation, the sum of \$10,000 for rebuilding the President's house which had been destroyed by fire and for fencing the campus. Four years later the General Assembly made its first appropriation for the support of the library, with a grant of \$5000 in Missouri bonds for library purposes.

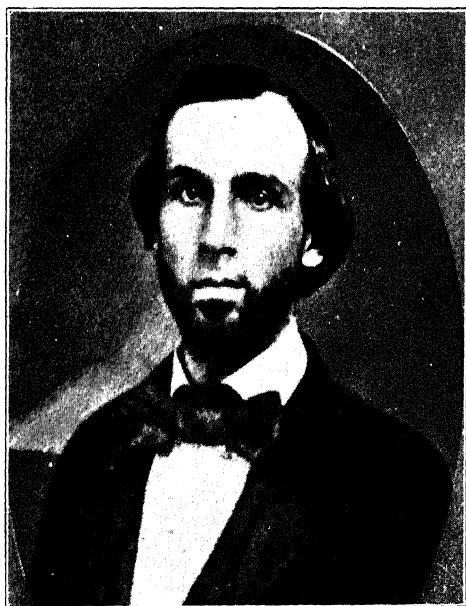
8. Proceedings of the Board of Curators, June 30, 1854.

9. Proceedings of the Board of Curators, July 5, 1850.

10. Lowry, T. J.—A Sketch of the University of the State of Missouri. p. 24.



JOHN HIRAM LATHROP  
President of the University—1840-1849  
1865-1866.  
Professor of English literature 1860-1863  
Founder of the Library and its ardent  
supporter.



BOLIVAR STARK HEAD  
Professor of Mathematics and Librarian 1853-1860.

Several small appropriations were made from year to year by the Board of Curators. In 1871 (June 29) the Board resolved to spend \$1000 annually for the "purchase of library books, to be expended under the direction of the President." At the same meeting one dollar for library purposes was added to the tuition fees of students. In 1871 the students and faculty under the leadership of Professor Oren Root, professor of rhetoric, logic, and English literature, and brother of the Honorable Elihu Root, formed an association for the purpose of providing periodicals for the new reading room and for keeping the reading room open three hours a day. This association purchased the periodicals and newspapers and paid a student, Scott Hays, \$16.00 a month to keep the library open. He was later given the title, Curator of periodicals, and a stipend of \$2.00 a week by the Executive Board,<sup>11</sup> and \$75.00 a year for the subscriptions to twelve periodicals, one legal, one chemical, one engineering, one library and the rest literary. Sixteen were being received as gifts, of which eight were newspapers, ten agricultural, two religious, two sporting and one a scientific journal.<sup>12</sup> The number of journals received was increased from year to year so that in 1886, ninety-four periodicals were being received currently by the library.

Appropriations for books and periodicals were granted quite regularly so that by 1892 the library's collection of books reached a total of 21,498 volumes.

On December 13, 1876, Scott Hayes was "authorized to sell the University views at 25c each and expend the money he received therefrom for books or periodicals". This fund together with a gift of twenty-five dollars made June 7, 1877, by Alexander Monroe Dockery, a curator of the University and later Governor of the State, was practically the entire income of the library for 1876-77. An effort was made to increase the book supply by soliciting as gifts for the library the publications of several publishing houses such as D. Appleton and Company, Harper Brothers and Charles Scribners' Sons. About five hundred volumes were received from these sources.

## 2. ADMINISTRATION

President Lathrop may be considered the first librarian of the University. It was he who founded the library and secured the first gifts and the first appropriations. At the close of his eight years of service to the University, he had collected seven hundred books, had provided a reading

11. The Executive Committee of the Board, consisting of the members of the Board of Curators then residing in Boone County of which there were five, was created by the Board on June 29, 1869.

12. For names see the author's *Mss. History of the Library* 1911. p. 33.

room with some equipment and had induced the Board of Curators to appoint a librarian to care for the collection and to interest himself in the growth of it.

Acting upon the recommendation of the President, the Board on September 5, 1849, elected as librarian, Robert Stuart Thomas, the professor of Metaphysics and English literature. Professor Thomas was formerly professor in Columbia College, and in 1839 when that college was merged into the University, he was elected a professor in the University where he rendered good service for many years. As librarian he was to care for the library in addition to his duties as professor and to receive as extra compensation a small fee from the students who used the library.

This arrangement continued two years when the Board abolished the library fee<sup>13</sup> and granted the librarian a salary of fifty dollars a year in lieu of the fees. Professor Thomas served the University as librarian from 1849 to 1853, when he resigned his position to become President of William Jewell College.

The honors of the office of librarian as well as its duties and responsibilities were bestowed upon Professor Bolivar Stark Head, a graduate of the University in 1849, and a professor of Mathematics, who received an additional salary of \$50 a year for his library position. Professor Head gave considerable time and thought to the administration of the library. He compiled a catalog of the library in 1857 in which he listed 2500 books and in which the rules governing the circulation of books adopted by the Faculty were first printed.<sup>14</sup> This catalog was a "classed catalog". The books were listed in thirteen classes or under thirteen different subjects such as modern languages, biography and history, poetry and fiction, dictionaries and encyclopaedias, and so on. It may be assumed that the books were shelved in the same classes. The books belonging to the societies were listed alphabetically. Two of the regulations have special interest: (1) Books were loaned only to officers and students; (2) Students were not admitted to the room where the books were shelved. A similar rule was in force in the University of Alabama: "The books shall ordinarily be received at the door, without admitting the applicant into the room". They applied at the librarian's desk for their books. A student could borrow two books for four weeks. The library was open every Friday from two to four p. m. Two vio-

13. Proceedings of the Board of Curators—April 1, 1852.

14. Catalogue of the Books belonging to the Library of the University of Missouri; to which are appended catalogues of the Books belonging to the Libraries of the Literary Societies. Prepared by the Librarian, Columbia, Mo. Printed at the Union Democrat Book and job office 1857.

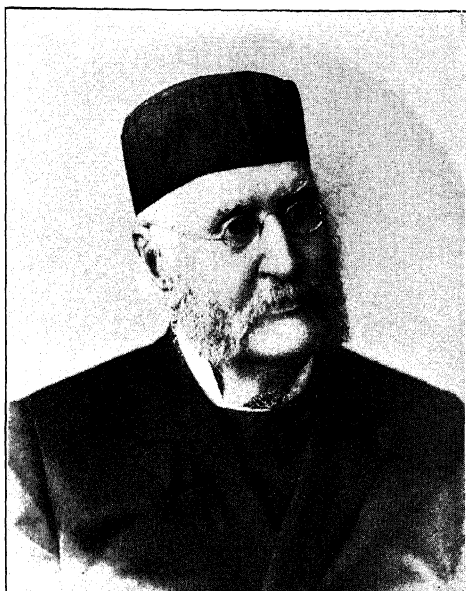
lations of the rule would exclude the student from the privileges of the library for the remainder of the session. A special committee of the Board of Curators investigated the library in 1856 and reported: "the books were well kept in cases which were locked" and that "five or six books had been lost by students".<sup>15</sup> This reminds one of the condition in the library of Harvard College. The story is told of Mr. Sibley, the librarian, who having completed his inventory was seen crossing the campus with a particularly happy smile. When asked the reason for this pleased expression, he replied: "All the books are in excepting two, Agassiz has those and I am going after them." The idea of the librarian of the middle ages that a library is a place to preserve books was brought down to 1856 and later in many of our university libraries. In regard to the loss reported by the Committee, Professor Head stated that students were negligent about returning books and frequently left the University at the close of the session without returning them which made it necessary for the librarian to search the students' "boarding houses" for lost volumes and not always without success. The librarian in 1861 reported that he had recovered ninety-four volumes from different boarding and rooming houses. The rule requiring every student who wished to use the library to make a money deposit, was passed by the Board several years later, and remained in force for fifty years. There was a precedent for this in the rules of the Bodleian library at Oxford and the Cambridge University library where students were required to leave a deposit in cash as a pledge of good faith when borrowing books.

Edward T. Fristoe, librarian 1860-1862 was, like his predecessor, a professor of mathematics. He did not issue a new catalog but checked and revised the one published by Professor Head, indicating the volumes that were missing. He added an appendix in manuscript listing more than 200 volumes which had not been listed in the previous catalog. He submitted this revised catalog as a part of his report to the Board of Curators in 1866.

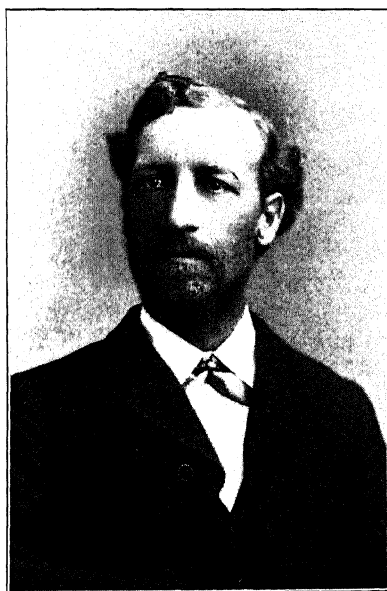
Professor Fristoe was the only man on the Faculty to abandon his office and position to join the Confederate army in 1862. This act so incensed the Board of Curators that they considered the question of declaring the chair of Mathematics vacant and ordered the Treasurer to withhold his salary check.<sup>16</sup> Fifteen or twenty years elapsed before the feeling subsided sufficiently so that the Board could authorize the payment of his unpaid salary. These were troublous times for the University.

15. Proceedings of the Board of Curators, April 18, 1856.

16. Professor Fristoe evidently left the University about February 25, 1862. He presented a bill to the Board of Curators, June 28, 1871 for his salary, January 1 to February 25, 1862.



JOSEPH GRANVILLE NORWOOD  
Librarian 1862-1877.  
Dean of Medical Faculty 1872-1880



SCOTT HAYES  
Assistant Professor of Agriculture 1873-77.  
Assistant Librarian 1873-77.  
Librarian 1877-1880.

The federal troops occupied the University buildings. The library was used as a guard room for federal soldiers.<sup>17</sup> The Board on March 20 declared all offices vacant and "discontinued the institution in consideration of the failure of patronage and income consequent on the disturbed condition of state and country."

The University was opened again November 24, 1862 in charge of an Executive Committee which evidently secured the services of Doctor Joseph Granville Norwood<sup>18</sup> as librarian in 1862. He made a report to the Board of Curators, February 17, 1863 on the loss which the library sustained by the occupancy of the library by federal soldiers. He reported 470 volumes missing which according to the "Library record" cost \$1,035.40. The loss of the books belonging to the literary societies was estimated \$139.50 for the Union Literary Society and \$146.50 for the Athenaeum Society. The loss sustained by the University including the library was not refunded to the University until 1915. The sum refunded \$4060.00 was used for the erection of the ornamental gateway on the north side of the campus. Owing to ill health Doctor Norwood was unable to render any service as librarian except in the way of advice. "The labor," he wrote the Board, "has devolved upon the assistant librarian". The Board of Curators<sup>19</sup> thereupon declared both offices, that of the librarian and that of assistant librarian, vacant. Later in the day Scott Hayes was elected librarian at a salary of \$500. He had been assistant librarian for four years but interested in the library since 1871 when he became Curator of periodicals. During his first year's service as librarian, he was Assistant secretary to the Faculty but from 1879 to 1880 he gave his entire time to the library and was therefore the first librarian to devote his whole energy to the library. He had the modern library spirit as will be shown by the development of the library under his direction.

He induced the literary societies to place their collections in the University library so that the whole student body could have the use of them. In 1878, the Athenaeum Society\* and the Union Literary Society placed their collections, numbering seven hundred and sixty-seven volumes, in the University library under the care of the librarian, with

17. Proceedings of the Board of Curators, February 17, 1863, also Catalogue of the University 1862-3-4-5.
18. Dr. Norwood was appointed professor of Natural science and philosophy, August 12, 1863 and Dean of the new Medical school in 1872. He was paid \$300 for his services as librarian, three and one-half years, 1862-65. Later the librarian's salary was placed at \$150 a year. His assistant who did the work received \$500 a year and paid for all extra help he needed.
19. Proceedings Board of Curators, June 7, 1877.

\*See page 40.



the reservation that the books should be circulated among members of the societies and that they should be used in the reading room by students and that the collections might be withdrawn at any time. The societies set apart as a book fund, twenty per cent of all the money they received. The policy was to make the society libraries, collections for cultural reading and to make the University library a reference collection.

In the same year, the Columbia Public Library\* consisting of eight hundred and nine volumes, a subscription library collected by the citizens of Columbia, was turned over to the University library. A part of the regular income of this library was set apart for the purchase of books. These collections made a total of eleven thousand nine hundred and twenty-five volumes and twelve thousand, three hundred and sixty-four pamphlets belonging to the University library.

Scott Hayes was a librarian in advance of his time. The modern library movement began in 1876 when the American Library Association was organized and the first professional journal of the profession was launched,—The Library Journal. There were few libraries in 1880 which had the modern methods and equipment which Mr. Hayes introduced into the library of the University of Missouri. Mr. Hayes made the first author and subject card catalog for all the books including those deposited in the library by the literary societies and by the Columbia Public Library, completing it in 1878. Such a catalog is so important that no library of the present would exist without it. He established a reference collection. The books were kept on a table, set apart for the purpose, to afford the greatest convenience in consultation.<sup>20</sup>

Mr. Hayes deplored the fact that so little money was available for building up a library adequate to the needs of the students and faculty, and made a strong plea to the Board of Curators for a library that would be ample for research work.

He also argued for a fireproof building in which to house the library. He wrote: "The Library of this institution should be in a building free from liability to destruction by fire. As the Library is now situated, suspended above the chapel, in case of fire, the whole would be precipitated about thirty feet, and be utterly destroyed. Should the State provide a fireproof building, for library use only, then will the friends of the institution be willing to make large and valuable donations toward the enlargement of its usefulness."<sup>20a</sup>

Mr. Hayes resigned because the salary was inadequate. The University faculty appreciated his efforts to make the library most efficient

\*See page 39.

20. Catalogue of the Missouri University. 1877-1878.

When he conveyed to that body the information that he would sever his connection with the University with the close of June 1880, the Faculty on June 4, 1880, passed several resolutions of appreciation one of which was: "That we tender our sincere thanks to Mr. Scott Hayes for his long, faithful, efficient and self-denying labors as librarian of the State University."

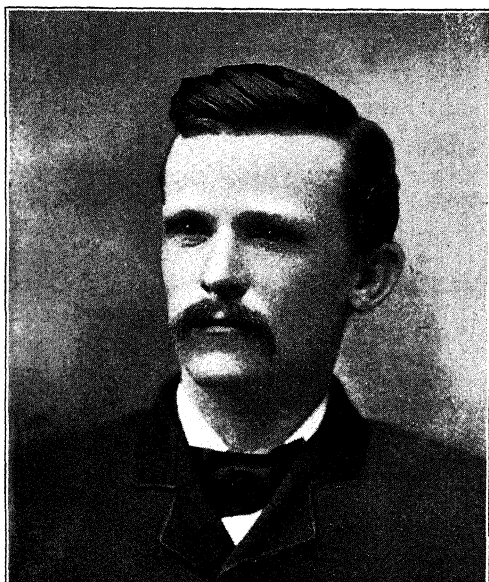
Scott Hayes was succeeded by Joseph Henry Drummond who served the University as librarian six years, 1881-1887. He was also proctor of the University and later secretary to the Board of Curators. As librarian and proctor his salary was placed at \$1500,—\$600 for his duties as librarian, \$900 for the proctorship. Out of this salary he was required to pay the salary of the assistant librarian.<sup>21</sup>

During Drummond's incumbency the literary societies withdrew their collections from the University library and placed them in their respective halls where they were under the complete control of the respective societies. The final disposition of the books deposited by the Columbia Public Library is not known. It is thought by some living members of the association that this library was moved in 1885 to the new room fitted up for library purposes on the second floor of the east wing of Academic Hall, where the reading room continued to be used as a study hall.\*

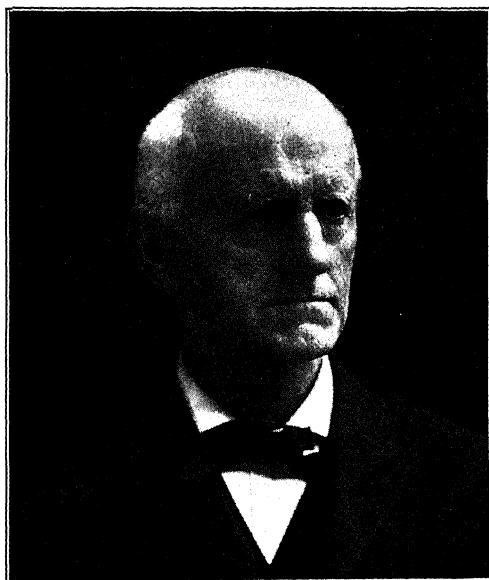
John Watson Monser succeeded Mr. Drummond as librarian. Drummond was a business man, Scott Hayes a teacher and librarian with a knowledge of the latest ideas in library administration. The previous librarians were professors but Mr. Monser was a minister in the Church of Christ, frequently called the Christian Church. His education and training for the ministry created in him a love for and an appreciation of books. He came to the position without any special training for library work. The Board of Curators decided to secure a full time librarian on a salary of \$600 a year. The Executive Board compiled a set of rules, thirteen in number, governing the library, and the librarian. Mr. Monser, promised to conform to these rules, executed a bond for \$500 to guarantee the faithful discharge of his duties, and after his appointment was installed into office. These rules provide for accessioning the books, for classifying them into five groups,—Arts, Science, Biography, History and Natural science, with books to be arranged alphabetically under each subject; for charging the books borrowed in a library day-book; for soliciting books and recommending purchases; for enforcing rules of

21. His assistants were Ida Hayes, 1881-1883; Henry Walter Elliott, 1883-1885; and James Snoddy, 1885-1887.

\*See page 37.



JOSEPH HENRY DRUMMOND  
Librarian 1881-1887  
Proctor 1881-1889  
Secretary Board of Curators 1885-1889



JOHN WATSON MONSER  
Librarian 1887-1897

decorum such as no smoking, no spitting on the floor, no passing of notes or bits of paper and the like.

With the assistance of his son, Harold E. Monser, he compiled and published a new catalogue of books in 1888 which superseded the printed catalog of 1857 and the card catalogue prepared by Scott Hayes.

Then came the catastrophe,—the burning of Academic Hall, January 9, 1892, and the loss of the library which had been accumulated over a period of fifty years. The Law library and about a hundred volumes out on loan were saved. Mr. Monser rose to the occasion, opened up a reading room two days after the fire one door east of Gerling's restaurant and placed his private library of 1500 volumes at the service of the student body.<sup>22</sup>

The loss of the library was keenly felt. Efforts were made at once to replace the books destroyed by fire. The library spent \$13,000 for books of which \$10,000 came from the insurance on the old library. With this fund, more than 6,600 volumes were purchased the first year. Gifts came from sister university libraries, from historical societies and from individuals, swelling the total accessions for the first year to 11,588 volumes.<sup>23</sup> The funds and gifts enabled the librarian to collect in four years a library larger than the one burned which had required a half century to collect.

Politics and sectarianism in governing boards of educational institutions usually work injustice to some one. President Jackson's idea of the spoils system is not a good idea in educational institutions. Politics have seldom entered into the administration of the University of Missouri, but in 1896 when the whole country was wrought up over the "gold standard" and the "free coinage of silver," excitement ran high even in University circles. One professor was "president of a democratic club and was always present at democratic assemblies". Another was said to have "set the prairies afire speaking for free silver from school-house to schoolhouse". It was during this excitement that the librarian "made a gold speech in the opera house". According to accounts it was a good "speech" but it was not endorsed by a majority of the Curators.

The Board of Curators met July 22, 1897 and discussed the situation in reference to the competency and efficiency of several university professors and of the librarian, who had taken an active part in the political campaign. The Board declared one office vacant, that of librarian, and immediately filled it again by the appointment of Walter King Stone to the position at a salary of \$1,000 a year.

22. Columbia Missouri Herald, January 14, 1892.

23. Catalogue of the University of the State of Missouri, 1892-1893.

### 3. CIRCULATION AND HOUSING, AFFILIATED LIBRARIES

#### *Circulation*

In the early days of the library, there was little demand for keeping the reading room open for a longer time than two hours a week, as there were few books and these could be borrowed for home use. This free use of books obtained until 1855 when a special committee of the Board of Curators investigated the library, and finding that several books had disappeared recommended that a deposit be required of every student who wished to use the library. This requirement remained in force up to 1873 when all circulation of books, even to professors, outside of the reading room was prohibited.<sup>24</sup> In the following year, however, the Board granted a concession to professors allowing them to borrow not to exceed six volumes for a period not to exceed two weeks. The students thereupon petitioned the Board to extend the same privileges to students and make the library a circulating library. The Board replied in no uncertain terms: "Resolved that it is the sense of this Board that the Library belonging to the University shall not, under any circumstances be a circulating library".<sup>25</sup> This restriction relative to the circulation of books among students obtained as late as 1892 when Academic Hall was burned. It was not rigidly enforced, however, after 1878 when the libraries of the Athenaeum and Union Literary societies and that of the Columbia Library Association were all three consolidated with the University library. Members of these societies in good standing were allowed to borrow books from their respective collections. Consequently other students by payment of a small fee were allowed to borrow from the same collections. In 1887 a reader could deposit the value of a book and then borrow it from the Columbia Public Library for one week or from the University library for overnight use. After 1892 the Executive Board extended the privilege of drawing books for home use to students on the condition that the student would deposit three dollars as a guarantee that he would return or replace the books borrowed.

In 1857 the library was open from 2 to 4 p. m. on Fridays. In 1871 when the Association of Professors and Students was organized to arrange for the opening of the new library as a reading room, the hours were set for 3 to 6 daily except Sunday. The expense of the additional hours was borne in part by the Association. In 1873 the Board made provision for keeping the library open from 8 a. m. to 10 p. m. and empowered the "President to make such regulations as to the hours for the different sexes who may visit the library room as he may think proper".

24. Proceedings of the Board of Curators—June 26, 1873.

25. Proceedings of the Board of Curators—December 15, 1875.

It was actually open from 8 a. m. to 6 p. m. The authorization of the additional hours was made to provide hours when the women of the University could use the library exclusively. Women were admitted to the normal department in 1869 and to the other departments a year or two later.<sup>26</sup> In 1876 the library became the study hall. From 8 a. m. to 6 p. m. the students were required to be in their rooms at home or in the class room or in the library. Then in 1887 the hours of opening were changed to 8:30 a. m. to 1 p. m., 2 p. m. to 4 p. m. daily except Sunday.

The charges for books borrowed were kept in a day-book. The student's name was entered followed by the number of the book. When the book was returned, the charge was cancelled by a check mark in red ink.

### *Housing the Library*

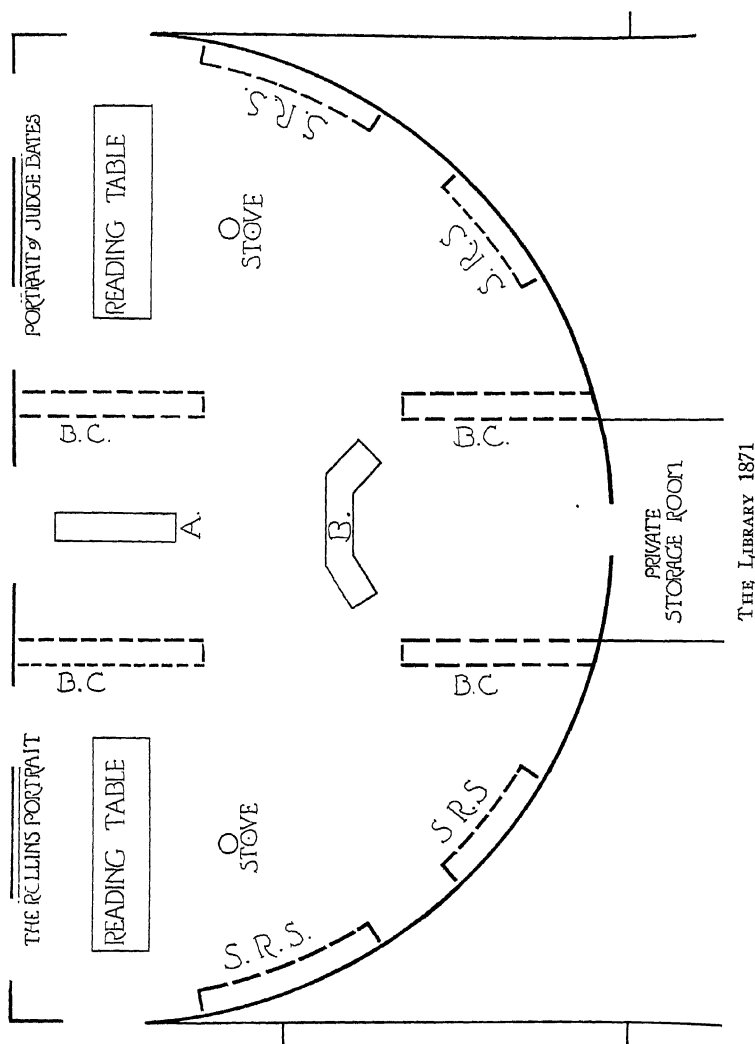
The writer cannot state with certainty that the library had a room to itself before 1871. President Lathrop in his report for 1845-6, urged the Board to set apart a room for the Library and to furnish it. The room was set apart but it was not furnished. After his purchase of books in the East, the President called the attention of the Board to the need of new shelving, of a table, and of other furniture for the following year. In 1852, another room was assigned to the library and this room was made the depository for the museum also. After six years it was transferred to a room in the old building corresponding in relative position to the Secretary's office in the present Academic Hall. Here it remained until 1871, when it was moved to the old forum which was fitted up for library purposes at an expense of twenty-seven hundred dollars.

"This room was directly above the chapel in the main structure of the old University building. For those early days that library room was large, finely furnished, and presented a charm and inspiration to every student who frequented it during study hours and to every visitor who entered its doors. It was admired by the novice and praised by the professional. Its ceilings were high and elaborately decorated with beautiful designs in plaster of Paris moulding and relief. It was seventy feet at its greatest length, had lofty ceilings, was well lighted and was admirably adapted to the intended purpose".<sup>27</sup>

The library was moved from the old forum in 1885 to rooms on the second floor of the new east wing of Academic Hall. This room set apart for library purposes was a large one containing 7526 square feet with a

26. Catalogue of the University 1872, gives an account of the admission of women students and ends with "By degrees, and carefully feeling our way, as though explosive material were all about us, we have come to admit them to all the classes in all the departments, just as young men are admitted.

27. Scott Hayes's letter March 9, 1911.



ceiling twenty-four feet above the floor. Readers could enter by two stairways directly from the chapel which was immediately below, and from the main corridor of the building by a side entrance. The room was lighted by side lights and sky lights and was well ventilated through flues in the walls. "This magnificent room had no columns in it, the roof being self supported. Its capacity and capability as a library and study hall are exceptionally good".<sup>28</sup> This was one of the best rooms on the campus for social functions. The Alumni Association met here. The Commencement dinners were served in this room. It was also used for other University functions.

The library occupied this beautiful commodious room for only a few years. The memorable fire of January 9, 1892, destroyed the entire building including the equipment and books with the exception of about one hundred volumes which were loaned out.

### *Affiliated Libraries*

The history of the University library would not be complete without an account of the three libraries which were for a time a component part of the University library.

The Columbia Library Association was organized October 29, 1866, by several young men of Columbia. The object of the meeting as stated in the preamble was:

"To effect an organization which shall afford means for mental improvement, through the aid of books, periodicals, and interchange of thought, and shall perpetuate these advantages for the good of others; to furnish for ourselves and others recreation at once attractive and elevating, and thus do in part our duty against temptation and evil; to increase the now existent culture and intelligence of our community, by offering a sphere for its exercise and improvement. . ."<sup>29</sup>

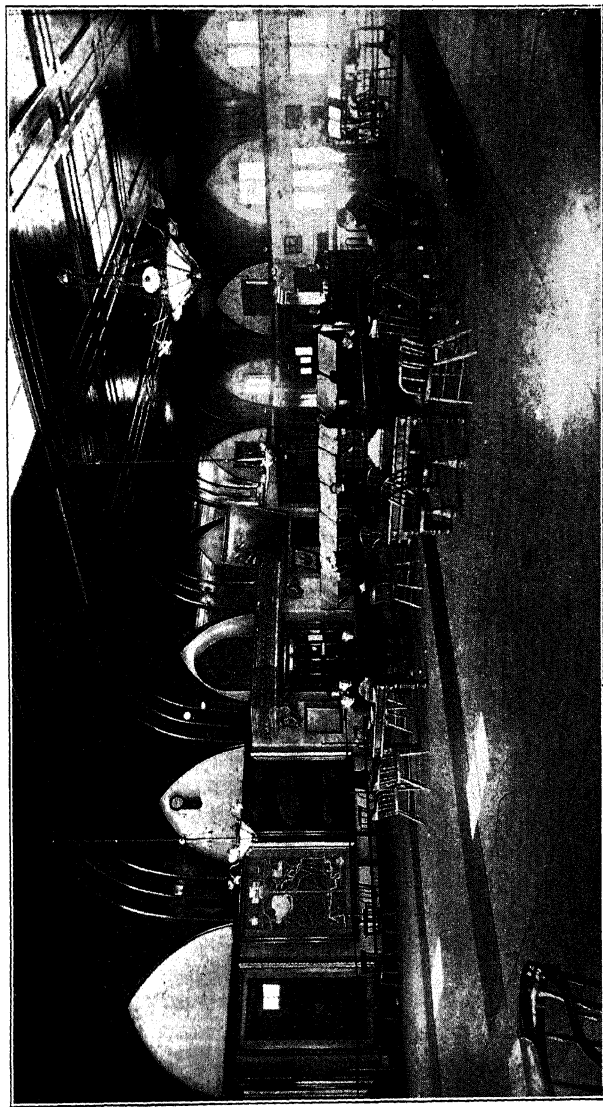
A constitution was adopted by the conditions of which a library was to be provided, that is, a reading room with a supply of books and magazines; and a course of lectures and entertainments.

There were four classes of members: honorary, life, general, and reading. Membership in the first was conferred by vote upon distinguished men. Life membership was bestowed upon such as paid into the library fund a sum of not less than twenty-five dollars. The general members were those who organized the association and such others as they voted to admit into their membership. The membership fee for these was ten dollars without annual fees. The control of the Society rested wholly in the general members. Reading members were those who

28. The Forty-fourth catalogue of the Missouri Agricultural College and University 1885-1886. P. 171.

29. The Missouri Statesman. November 16, 1866.





THE LIBRARY 1887  
Commencement dinners were served here

enjoyed the privileges of the library and paid an annual fee of three dollars. The privilege of drawing books for home use was denied the reading members. Any person, who was either a permanent or a temporary resident of Boone County was eligible for membership. The first officers of the Association were:

President, Professor Oren Root, Junior; Vice-President, Frederick Bullock Young; Treasurer, Andrew Walker McAlester; Secretary, Arthur P. Selby.

The Association appealed to the citizens for gifts of money and books and met with a hearty response. Within a month's time, books to the value of a thousand dollars were received while more than that sum in money had been subscribed. The books were left at the homes or offices of Oren Root, Frederick Bullock Young, Arthur P. Selby, and Edwin William Stephens. Some of the young men who organized the Columbia Library Association in 1866 afterwards became distinguished citizens. The names of the founders were: Andrew Walker McAlester, Oren Root, William Sylvanus Pratt, Fred B. Young, Edwin William Stephens, Lewis Milton Switzler, Robert Thomas Prewitt, Arthur P. Selby, Irvin Oty Hockaday, Sanford Francis Conley, and others.

In December the Association reported the fund of money donated to it as one thousand five hundred dollars and that a room in the Court House had been secured for the library temporarily.<sup>30</sup> The Association planned to secure permanently two large rooms suitable for reading rooms. It is a remarkable fact that this Association effected a permanent organization, secured accommodations for a library, secured a large collection of books and raised about one thousand five hundred dollars for the purchase of books within a month and a half. This shows that the citizens of Columbia were in sympathy with the movement and that they were ready to assist with their means.

At the annual meeting December 24, 1869, the administration of the library was somewhat changed. It was placed in charge of a committee and the following resolution was passed: Resolved that this association elect three of their number to be entitled an "executive committee", to whom be entrusted the entire care and conduct of the Columbia Library for the year 1870, the services of the other members being at all times co-operative with the action of said committee.

Oren Root, Edwin William Stephens and William Sylvanus Pratt were appointed said committee.

The library was established in the Court House early in 1867, where it remained until it was transferred to Doctor Paul Hubbard's office some time previous to 1872. The writer has been unable to find

30. Missouri Statesman. December 14, 1866.

the reason for the transfer, either from the records or from members still living. It is probable that the association was unwilling to continue the expense of an attendant. The Association became financially embarrassed. In 1875 the library was transferred to the home of George Wallace Trimble.

The interest in the library decreased as the years went by and it became burdensome to keep the library in good condition. The citizens withheld their support and enthusiasm waned. The fees were not paying the current expenses. Several lectures and entertainments had been held, but the lecture halls were inadequate and unsuitable. It therefore became impracticable to raise money from lectures and entertainments. It was at this juncture that a meeting of the stockholders was held in March 1875.

"Several propositions were submitted, discussed and rejected; but it was finally agreed that until otherwise ordered the books and book cases should be moved to the residence of Mr. G. W. Trimble, (he being present and consenting thereto); that they should there be securely kept and the books given out only to life members, and to such annual members as have unexpired tickets, and that applications be made as above, only on Monday afternoons."

The library remained here three years. Several entertainments were held for its benefit. It was inconvenient for readers to go to a private house to read or to get books. It gave them no encouragement to read. It must have been an annoyance to the Trimbles to have part of their house semi-public.

In 1878 the two literary societies of the University, the Athenaeum and the Union Literary, placed their collections of books in the library of the University where they could be used by students. Their books were circulated, however, only to members of the respective societies.

This movement may have suggested to the Columbia Library Association the advisability of disposing of the Columbia library, which was a collection of eight hundred and nine volumes. At any rate, we find that the Columbia library was deposited in the University library in 1878, but remained the property of the association. Life members and those who paid an annual fee of three dollars were permitted to draw books from this library. They had the privileges which they had previously enjoyed. The University library and the society libraries also were at their disposal. On the other hand, students of the University could use the books of the several collections in the library although they could not withdraw them for home use without paying the society dues. It is not definitely known what became of this collection of books. The Executive Board on December 4, 1884 has a record to the effect that the Columbia Library Association had signed a document turning over to the

Women's Christian Temperance Union their books and property. A year later the Executive Board ordered the "Old Columbia library to be kept in a separate case to prevent the books becoming mixed so there would be no difficulty, when the library might be called for.

From this evidence, it is safe to conclude that the Women's Christian Temperance Union did not withdraw the books in 1884 and that the books remained a part of the library and were burned along with the University library in 1892.

The libraries of the Athenaeum and the Union Literary societies belonged to student organizations. The Athenaeum Society was organized December 10, 1841, as the University Lyceum. The name was changed to Athenaeum Society, August 19, 1842. The Union Literary Society also had an early origin. It was formed June 29, 1842. These societies were organized for the purpose of training the students in public speaking, debating, and declaiming. In the course of time they collected a considerable number of books. The societies decided in 1878 to place their collections in the University library although they were not to become the possession of the University. The number of books turned over to the University at that time were seven hundred and sixty-seven volumes. When the collections were taken back to the society rooms in 1887, the Athenaeum had five hundred and twenty-five and the Union Literary Society had three hundred and forty-eight volumes. At the time of the fire the two libraries possessed upwards of a thousand volumes.

The Library of the State Historical Society of Missouri is housed in the new Library Building of the University. It was organized on May 26, 1898 by the Missouri Press Association. The purpose of the Society as expressed in the Constitution is to collect, preserve, exhibit and publish materials for the study of history, especially the history of the State and the Middlewest.

The largest gift to the Society was made by Francis Asbury Sampson who had during thirty years collected "Missouriana" to the number of 1,886 volumes and 14,280 pamphlets, which he presented to the Society in 1901. The Society accepted the gift and engaged Mr. Sampson as its secretary. He was eminently successful as a collector having secured for the library in his first ten years of service 19,000 volumes and 30,000 pamphlets. This work has been ably continued by Floyd C. Shoemaker, the present Secretary, so that the Library now contains the largest collection of material on "Missouri history in the United States and ranks with the leading historical societies of the Mississippi Valley in the value of its collections and work." In December 1926, the library contained 79,080 volumes and 208,669 pamphlets. The material in this collection supplements that of the University Library and renders the purchase of

books in the fields covered by the Society by the University Library unnecessary. The special collections of Mark Twain, Eugene Field, and other Missouri authors, the state publications which are more nearly complete than those in any other collection, the large newspaper library in which every county of the state is represented, add materially to the University's resources for research workers.



# History of the Library

## PART II—1892-1927

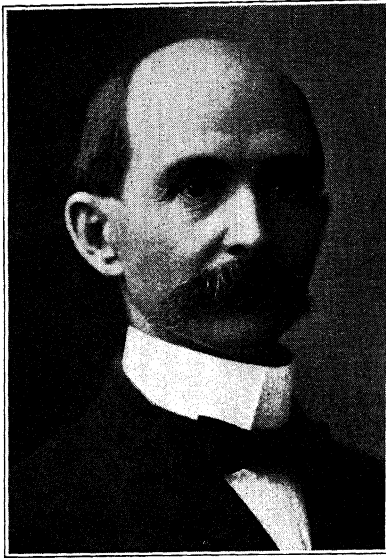




## PART II

### 1. THE FORWARD LOOK—REORGANIZATION

When Doctor Richard Henry Jesse became President of the University of Missouri, the University was a provincial institution, when he resigned in 1908, the University was favorably known beyond the seas. There was a gradual elevation of the standard of administration, of teaching, of personnel of the faculty, of qualifications for admission, the until the University of Missouri took rank with the best universities in country and was admitted into the National Association of State Universities, and the Association of American Universities. With his clear vision of what the University should be he pressed forward, secured the best men for the faculty that he could get with the money he could pay in salaries. He secured also the best equipment and the best library he could get with the limited income of the University. In his scheme of University development, the library held a central place. After the stress of building Academic Hall was over, and the General Assembly had become more generous in its appropriations, he caught new visions of the future greatness and usefulness of the University. The library had not kept pace with other divisions of the University in their progressive movements. Here was a collection of 30,000 books, considerably scattered in departmental libraries, in professors' offices, and in the main library, not cataloged, nor indexed, not classified, with no attempt to complete and bind periodicals files. The administration therefore naturally focussed attention on the library, that indispensable department without which the institution could not achieve distinction. The General Assembly appropriated \$10,000 for the library for the biennial period 1899-1900. The Executive Board decided in 1899 to reorganize the library. Their plan was to select a college man with library training for head librarian and give him all the help he needed and hold him responsible for introducing modern methods and for placing the library in first class condition, in fact, to make it equal in efficiency to libraries of other institutions. Mr. James Thayer Gerould was secured and entered upon his duties October 1, 1900 and Mr. Walter King Stone, librarian from 1897 to 1900, was given the title of First Assistant Librarian. Mr. Gerould was graduated from Dartmouth College in 1895 with a bachelor of arts degree. He was assistant librarian in the General Theological Seminary, 1896-97; and later an assistant in Columbia University library for three years. From there he came to the University of Missouri, October 1, 1900. "With the coming of its first trained librarian, the University began to work seriously for the rebuilding of its library, and



WALTER KING STONE, B.A.  
Librarian 1879-1900  
First Assistant Librarian 1900-1911  
Law Librarian 1911-1915



JAMES THAYER GEROULD  
Librarian 1900-1906

this good work has never since slackened".<sup>31</sup> Mr. Gerould reorganized the library along the lines of modern library development which contributed immensely to the efficiency of the library service. Students were given the privilege of borrowing books for home use with no other restriction than an agreement to abide by the rules of the library. The rule requiring students to make a deposit of \$3.00 before they could draw a book was abolished.

He made a card catalog of the books in the library and arranged the cards alphabetically in one file including author, title, and subject cards. This public catalog was known as a "dictionary catalog" on account of its alphabetical arrangement. The first card catalog was made by Scott Hayes and fell into disuse after he resigned. A printed catalog followed in 1888 which was rendered useless on account of the fire.

He classified the books by subjects according to the Dewey Decimal System which is now almost universally used. He found the books arranged on the shelves alphabetically by authors. The number assigned to the book in the printed catalog indicated that the books had fixed numbers in the stack. To illustrate, the number 578 following a title in the printed catalog indicated the fifth stack, seventh section and eighth shelf.

He instituted a new charging system. The author and title of the book was written on a card which was signed by the student borrowing the book. This system superseded the Day-book then in use. He recorded the receipt of periodicals on cards which contained also the name of the publisher, subscription price, and the like. When the current periodicals were complete in volumes, he had them bound. Many bound files of periodicals begin with the year 1900, when Mr. Gerould became librarian.

Considerable friction developed between the Librarian and the first assistant in 1905. The result was that the first assistant was released from the librarian's supervision and became responsible directly to the President of the University for the supervision of the reading room.<sup>32</sup> This produced the situation of a "house divided against itself" which was intolerable and inefficient. Mr. Gerould was soon elected to the position of librarian of the University of Minnesota which he accepted, severing his connection with the University of Missouri, July 31, 1906.

On January 1, 1907, Henry Ormal Severance, Master of Arts of the University of Michigan, and assistant in the library of the University of Michigan, became librarian, having been elected to the position November 26, 1906. During the interim of five months the library was

31. Doctor Richard Henry Jesse, President of the University, 1891-1908.

32. Proceedings of Executive Board, June 29, 1905.



HENRY ORMAL SEVERANCE  
Librarian 1907-

administered by a library committee. Grace Lefler, cataloger, was in charge of the office work and of the catalogue; Grace Darling Phillips in charge of the periodical work; Walter K. Stone, first assistant librarian, in charge of the circulation. When Mr. Severance assumed the duties of his office the entire administration of the library in all its departments was again placed in charge of the librarian.

The new librarian had some definite ideas on the relative position a library should hold in a University center, and methods to be pursued to make the library function as a great public service institution. No one understood better than he that there were several essentials for an efficient University library. There must be a stack of books and periodical literature containing current material as well as source material which could be secured only by liberal appropriations and by generous gifts. This material must be cataloged and classified and indexed and made easily accessible under reasonable regulation. There must be a library staff, technically trained to secure the books, prepare them for use and to assist students and faculty in their search for material.

## 2. ACQUISITIONS

The first essential in building up an efficient University library is a sufficient annual appropriation to purchase the current literature on the subjects taught in the classes, such as sociology, political science, and for the purchase every year of some of the basic material or source material for research. The amount needed depended upon the collection already possessed by the library and upon the demands of faculty and students for class work and for research. While the annual appropriations for the library have been insufficient to place the library on an equal footing with other university libraries of its class, and while the library has not kept pace with the growth of the University, still it has rendered creditable service, considering the small collection with which it started in 1900—33,540 volumes. The annual appropriations previous to 1920 would average \$15,000 a year. In the meantime a School of Journalism, School of Business and Public Administration and the School of Fine Arts have been established and many additional courses offered in the established schools and colleges which have resulted in additional tax upon the resources of the library. From 1921 to 1926 the appropriation averaged nearly \$25,000 a year. In 1908 there were 2767 students, in 1925, there were 5276 students, which means that the library received \$4.83 per student in 1908 and \$2.50 per student in 1925. Expressed in terms of books, the annual accessions from 1900 to 1920 were below 8,000 volumes a year. From 1920-1925 the annual additions were above 10,000

volumes.<sup>33</sup> About half of the annual accessions are gifts. The number of volumes, however, is not the standard for acquisitions. It has been the policy to buy with future needs in mind. Complete sets of transactions of learned societies were purchased, also complete files of journals, and the completion of files of standard journals, complete works of authors, and in the case of literary writers like Whitman, his works in various editions and the books written about him and criticisms of his works. As evidence of this policy one may find in the library the complete file of the publications of the League of Nations; Marten's *Recueil des traites d'alliances de paix de treve*, ninety-four volumes; complete set of the *Hansard Parliamentary Debates*; and *Archives parlementaires 1787-1860*. An examination of the National Union List of Serials in which the holdings of this library are checked indicates that this library has a creditable number of complete runs of periodicals and a glance at the brochure, *Facilities and Resources of the Library for Graduate Work*,<sup>34</sup> will convince the student that a large amount of source material in history, political science, literature, science, and other subjects, has been accumulated by the library.

The purchase of several private libraries in the last three years has enriched the library in the field of medieval French history, comparative legislation, classical literature, theology, political science, public law, and biology. When the librarian was in Paris in 1920, he purchased the private library of the late Jacques Flach, a French jurist, historian, and professor of comparative legislation since 1884 in the *College de France*. His library was rich in the history of Alsace-Lorraine, early French law, medieval France, comparative law, and legislation. The collection contains about 6,000 volumes. There are many rare books in this collection—a manuscript, a book printed in 1498, several Elzevirs and a Froben imprint.

The Paul Lejay library enriched our collection of classical literature and theology. This library consisting of 6,000 volumes was purchased in 1921. The collection contains many rare books. It has all the best editions of Horace, Virgil, and Cicero published in France. There are two hundred volumes of Cicero, one hundred of Horace, and one hundred of Virgil. All the classical writers are represented.

The major portion of the private library collected by Dr. J. Oppenheim, Professor of Political Science in Cambridge University added 614 volumes to our political science shelves. These three libraries so enriched our collection in history, political science, and classical language and

34. Severance, Henry O. *Facilities and resources of the University Library for graduate work*. University of Missouri Bulletin. Library series No. 13.

literature that students may find ample material for their researches in these fields of knowledge.

The library possesses the standard works in biology especially the periodical literature. The collection was enriched in 1923 by the addition through purchase of the private library of the late Doctor George Lefevre, professor of Zoology, University of Missouri, consisting of nearly four hundred books and five thousand reprints.

The gifts to the Library are no less significant than the purchases. When the University of Missouri reached a standard sufficiently high to be invited into the Association of American Universities and the National Association of State Universities of the United States of America, the University library shared the reputation of the University and was placed on the list of private donors. When the Honorable J. Taylor Ellyson, Lieutenant Governor of Virginia, distributed the important privately printed work in 1908: *The London Company of Virginia*, he presented a copy to the University library. There were only three hundred printed for private distribution of which this is number 279. When Sir William Osler in 1909 presented the Library with a copy of *Andreae Visalie Bruxellensis invictissimi Carolii V. Imperatores Medici de Humani corporis fabrica libri septum Basileae*, he wrote: "This is one of the great books of the world . . . I send this volume to the Medical School of the University of Missouri in recognition of the good work it has done".

When Louis C. Tiffany published his Art work "written for the comfort of his children and at their request" he sent copy number 204 "to the University of Missouri Library with the best wishes of Louis C. Tiffany, June 1916."

The French government in 1907, through the Minister of Public Instruction, made a valuable gift to the Library consisting of a set of "Collection de documents inedits sur l'histoire de France", "Inventoire general des richess d'art de la France" and "Catalogue general des livres imprimes de la bibliotheque national" which has been issued one volume at a time and has now reached the letter L in Volume 86.

The first private library presented to the University library was the collection of one thousand volumes of scientific and technical books collected by Doctor Abram Litton and presented by him to the Library in 1897.<sup>35</sup> In 1903 the Honorable George Graham Vest, United States Senator from Missouri, gave his collection of public documents amounting to about nine hundred volumes collected by him during his long and honorable service in Congress.<sup>36</sup> In 1905 the Honorable Francis Marion

35. Proceedings of Board of Curators, December 22, 1897.

36. Librarian's Report, 1902-1903.

Cockrell, United States Senator from Missouri, presented the library with four hundred thirteen volumes and two hundred pamphlets of government documents. He supplemented this gift in 1910 by presenting the library with his private collection of documents of three thousand volumes which he had accumulated during his long service in Congress.

Another very practical and useful gift covering a period of four years, from 1906 to 1910, was the gift of the Honorable Gardiner Lathrop to the Library of one thousand dollars to be paid in four annual installments. The fund was given in the memory of his father, John Hiram Lathrop, President of the University, 1840-1849, 1865-1866, and Professor of English literature, 1860-1863. This fund was applied to the purchase of books needed for collateral reading in connection with the courses in English. The collection was first shelved in the office of Doctor Edward Archibald Allen, professor of English language and literature, through whose suggestion the fund was created. The collection is known as "the John H. Lathrop Memorial library" and is shelved in the stacks of the General Library.

Rare books in a library help to give it distinction but libraries are seldom able to purchase them. Such treasures are invaluable and are usually given by friends. Doctor William K. Bixby of St. Louis has been a friend to a considerable number of libraries and to scholars. In privately reproducing in facsimile from manuscripts in his possession, Poems and letters in the handwriting of Robert Burns, Private journals of Aaron Burr, Private correspondence between Charles Dickens and Maria Beadnell, Note books of Percy Byssche Shelley and many others, he has rendered a great service to scholars. The University Library is indebted to Dr. Bixby for nineteen titles privately printed and distributed with his compliments.<sup>37</sup>

The Library possesses one manuscript and two books published before 1500 A. D. as well as many rare ones of a later date. Many of them were in the private library of Professor Flach purchased in 1920.

The Library received as a gift in 1921 the Lawson library of crime and criminology. After Judge John Davidson Lawson retired from the deanship of the Law School of the University, he compiled the American State Trials which reached its thirteenth volume before he died. In the compilation of this great work, he accumulated a library of some two thousand titles on state and other criminal law and criminology in all of its phases, one branch of which is the report of criminal trials, with funds furnished by his friend Doctor William K. Bixby of St. Louis. The Library is unique on account of its subject. It contains many valuable and many rare pamphlets and books collected during a

37. See Appendix for a List of books presented by Doctor Bixby.



period of nearly twenty years. It is one of the largest collections in this particular field to be found in the United States.

The exchange of duplicate books with other libraries is a prolific source of acquisitions. Various university and public libraries list their duplicates and send the list around and libraries select what they need from the lists. The University library has added several thousand books by this method,—five hundred to seven hundred a year.

Another source of income is the serial publications which this library receives in exchange for the University of Missouri Studies and Bulletins. Publications, books and serials from nearly all the astronomical observatories of the world are received by the University. The agricultural bulletins, circulars, research bulletins and the like bring in return quantities of agricultural literature. The library received in 1925, one thousand two hundred and forty periodicals as gifts and exchanges, not including general bulletins issued by universities and the publications of agricultural experiment stations. A majority of these periodicals are bound when the volumes are completed.

### 3. CIRCULATION

Another indication of the efficiency of the Library may be found in the service rendered by the department which has in charge the circulation of books, the department which assists the student in finding his material and places into his hands the books he wants. The quantity circulation is some indication of the use of the Library. Two hundred twenty-five thousand nine hundred and fifty-eight books were passed over the loan desk in 1925 and only one hundred five thousand five hundred and forty-seven were loaned in 1920. The fact that thirty six books were issued to every student in 1925 and that only twenty books were issued to every student in 1920 indicates that the Library rendered a greater service in 1925 than it did in 1920. Statistics of circulation were not kept every year. From 1918 to 1925, the circulation has steadily increased from eighty-two thousand seven hundred and twenty-seven in 1918 to two hundred twenty-five thousand nine hundred and fifty-eight in 1925, and two hundred eighty-eight thousand four hundred and twelve in 1927. This means that the home circulation increased from thirty-two thousand four hundred and seventeen to fifty-seven thousand three hundred and thirty-four and that the daily circulation which includes reserved books jumped from fifty thousand three hundred and seventeen in 1918 to one hundred seventy-nine thousand eight hundred and four in 1925, more than 300 per cent increase in seven years. This means an average daily circulation in 1925 of six hundred and thirty books.

The "reserve book" collection has always been near the loan desk so that the books may be issued quickly. In 1897 reserve book loans were recorded in a day-book when issued. From 1900 to 1912 the students wrote author and title on cards for every book they borrowed. In 1912 to 1922 there were pockets in every book in which was a book card on which the student signed his name before he could take the book. From 1923 to date the cards are still in the pockets but the loaning is facilitated by the student's filling out a blank slip which he hands to the book clerk and receives his book without delay. His slip is clipped to the book card.

The reference collection has facilitated the work of students who have direct and easy access to six thousand periodicals and reference books. This collection was established in 1907 while the library occupied the west wing of Jesse Hall. All the reference books available in the library at that time were placed on shelves and tables in the reading room. The collection has been strengthened from year to year, so that one may find in the present reading room all of the important standard reference works. Since the establishment of the collection a member of the library staff has been assigned to assist students and faculty in the location of material.

The stacks were open to the entire student body in 1907. The congestion of students in the stacks and offices, the loss and misplacement of books, the inability of the book clerks to find books called for as the books were misplaced or removed from the Library were considered sufficient reasons for closing the stacks to the public. It was not unusual for the librarian returning to his office to find a student occupying his chair and desk. Consequently, the reference collection was established to which students had direct access and the stacks were closed to students. However, if a student were working on a problem which required the use of a considerable number of books, he would be given the privileges of the stacks. The same policy obtained in 1925. Graduate students are admitted to the stacks and seminar rooms where their books are easily accessible. Four seminar rooms were provided in the new building for graduate students. Every assistance and all privileges consistent with effective library administration were granted graduate students. The reference department has advised students in compiling bibliographies and has borrowed books from other libraries for research students and for faculty members, when the library has not contained all the literature essential for the study. There were one hundred and eight volumes borrowed for this purpose in 1905 and three hundred and six in 1925.

A card catalog of the Library of Congress books is available for the location of material. The National Union list of periodicals found in the large American libraries is also available. This list gives the holdings

of the libraries cooperating so that material to be borrowed is easily located. This department has issued reading lists on various subjects to encourage students to read. The Red Star collection was formed for this purpose. Readable books on geography, travel, description, fiction, college life were brought together on open shelves for students' examination. A few years later, twenty books were placed on an open shelf every week, which were suggestions for students' reading. At least three-fourths of the books were borrowed every week. Then printed lists, such as books for children were issued.

Periodical literature reading has always been popular with students. For many years one end of the main reading room was the periodical room, but since 1920 a separate room has been devoted to this work with a staff assistant in charge. In this room are shelved in pigeon holes nearly seven hundred magazines received currently to which the student has easy access without the formality of asking anyone.

In 1908 the Library received currently 1300 periodicals of which 743 were gifts. In 1925 the Library received 2942 periodicals of which 1640 were gifts. The reading room of the main library has proved inadequate for the great number of students. The north part of the old reading room in Jesse Hall was retained in 1914 when the Library was moved into the new building. This has been in continuous use as a freshman reading room, except during the year 1919-20. The reserve books for the Citizenship course were circulated here. In 1925-1926 the readings in certain courses for other underclassmen were also issued in this room. The use of this room has relieved the congestion in the main library and has enabled the Library force to render the student body better service than it otherwise could have done. All reserved books except English literature were transferred to the new reading room on the first floor of the Geology building in 1927.

The epidemic of fictitious signatures which struck the student body after the War was difficult to cope with. A large class assigned reading in two books was unable to meet the requirements when one member of the class would borrow the book and write a fictitious name on the card. There were four convictions in 1921, eight in 1923 when a rule was passed by the Committee on Discipline that any student who may be convicted of signing a fictitious name would be dismissed from the University, for at least one term. An application of the rule eliminated several students and nearly all the fictitious signatures.

The most serious case of mutilation and theft occurred in 1917 by two brothers, students from St. Louis. The chairman of the Committee on Discipline and the Librarian, through information furnished by a student employee of the library, located eighty volumes in the rooms of these students. Some of the books were badly mutilated and all

except a half dozen had the marks of ownership removed and a personal book plate pasted over the place where the library plate had been removed. Eighty volumes were recovered, sixty-three of which belonged to the Library, eleven to the State Historical Society, and six to individuals. The Library received payment of \$162.00 in settlement. The young men went home.

The circulation of books to citizens of the state outside of Columbia has grown rapidly since the Board of Curators granted the librarian the privilege of loaning books to non-residents in 1913. In that year, one hundred and twenty books were issued to non-residents. The book circulation gradually increased so that the records for 1925 is 2842 books, 268 debate packages to high schools and 767 clippings. This material went into 423 towns of Missouri covering every county of Missouri.<sup>38</sup> The first debate packages were assembled and issued in 1914 in cooperation with the Extension Department of the University. Twenty-five were loaned in 1914, one hundred and eight in 1920, two hundred and sixteen in 1922 and two hundred and sixty eight in 1925.

When the clinical work in the Medical School was discontinued in 1910, several of the microscopes were sold to other departments of the University. With the proceeds—\$700—books were purchased for the Medical Library, and expenses of a card catalog and of a printed list of the books were paid. The purpose of the printed catalog was to furnish a finding list for non-residents of the state, many of whom borrowed books from our Medical Library. A travelling library of medical books—twenty-one volumes—was formed, and started on an itinerary, November 17, 1910 beginning with Dr. W. P. Smith of Troy. It was then forwarded to Marshall, to Butler, to Lathrop, and back to Columbia.

The Library circulated considerable number of books among farmers. In 1915 six travelling libraries of fourteen volumes each were made up, put into small boxes with handles on them for ease of carrying. The extension lecturer frequently carried a box with him and recommended the library to his audience. As a result the libraries were in constant circulation for two or three years.

In the same year, the Library in cooperation with the Agricultural Extension Department established fifteen farm adviser libraries of sixty-five volumes each. The farm advisers provided a room for the books and assumed the responsibility for their circulation. The books were cataloged on cards, pocketed and had loan cards in them. These libraries had a satisfactory circulation and rendered good service for several years. As the number of farm advisers increased and there was not money for the purchase of additional collections, it was decided in 1923 to withdraw

38. See Appendix for Map—Library extension service.

all the collection and arrange the books into several travelling libraries according to subjects. For instance, library number 2 contained twenty books on domestic animals, poultry, and bees. These libraries had a very limited circulation even among the farm advisers.

Another important service rendered to non-residents consists in recommending books, magazines and articles and programs to women's clubs and literary societies and to individual citizens. A citizen wrote to the librarian in 1922: "I have two boys, seven and ten years old, and I realize I don't know much how to teach them, so would like to know if you know and can advise me in what kind of books or magazines I can get for the ten year old, also is there any book instructing fathers on the line of raising boys."

#### 4. THE CATALOG

The worth of a book is greatly enhanced by a table of contents and an index. The index to Stevenson's *Home Book of Verse* adds more than a hundred per cent to its value as a reference book. A library without a catalog is non-usable. The card catalog of the library is the index to the material on the shelves in the stacks. The cataloger first classifies the book so that all books in the library on the same subject will be together. She then writes cards for the book, an author card, a title card, if she thinks the book may be called for under the title, and a card for every subject on which the book treats. All these cards are filed in the public catalog which is the student's index to the library. In 1908 there were 18,770 cards added to the catalogs of the library. In 1925, 50,965 cards were required for the indexing. Then there are printed indexes to periodical articles, to newspaper articles, to individual journals, to sets of works like Warner's *Library of World's best literature* and the like. The sole purpose of all this indexing on cards and in print is to make the world's literature available to readers and students. There is the catalog of the John Ryland's Library, the *Bibliothèque Nationale* of Paris and many others. The German, English, French, Italian and American national catalogues furnish the student lists of the publications of the various countries for a series of years.

Many library books are lost in the course of five years so it is necessary to revise the public catalog occasionally in order to eliminate cards for books which are missing. Subject headings get out of date, new ones are added from time to time. Guide cards are needed. The public catalog was thoroughly revised in 1912. Since then there has been constant revision.

When the Dewey Decimal System was adopted as the scheme by which the Library books should be classified, there were many exceptions to Dewey written in by the professors with the librarian's consent. After

using the scheme as modified from 1900 to 1911 it was found that many of the modifications were undesirable. In 1911, therefore, a revision of the classification of the 110,000 books in the library was begun and continued by the regular catalog department staff for ten years.

In addition to the public catalog in the main library where a record of all the books on the campus is made, there are complete card catalogs in the Agricultural, Engineering, Journalism, Law, and Medical Libraries.

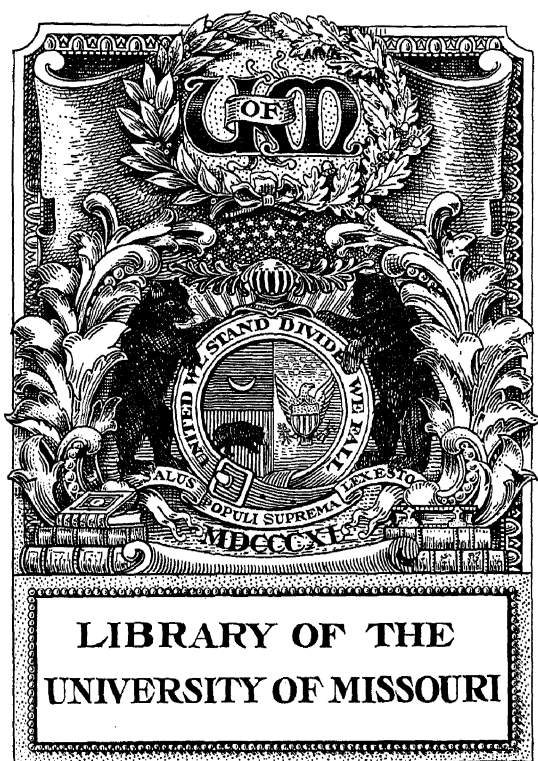
All library books contain marks of identification, the most important of which is the beautiful book plate designed by J. W. Spenceley.

The old book plate of the Library was a small printed slip giving the name of the University and the Library with spaces for the accession number, class mark and department. The new book plate was engraved by Joseph Winfred Spenceley of Boston in 1899. A description of the plate as given by Doctor William George Brown is as follows:

"The book plate is of a most beautiful and elaborate design. In the center are the Arms of Missouri, surrounded by the Garter on which are the words *United We Stand Divided We Fall*, supported by grizzly bears, beneath the Arms a ribbon with the motto, *Salus Populi Suprema Lex Esto*, and beneath the latter MDCCCXL, the date of the foundation of the University. Surmounting and resting on the Arms is a full faced barred royal helmet, denoting the Sovereignty of the State, with a crest of a cloud through which twenty-four stars have burst; one larger and brighter than the others in the constellation, represents the State of Missouri blazing forth through the occidental darkness and taking its place with the other states, making the twenty-fourth in the order of admission to the Union.

Above the crest is a chaplet or wreath composed of oak and laurel leaves surrounding the letters of the monogram *UM* connected by the word *OF* placed over them. The whole design is on a scroll, at the foot of and on each side of which is placed a small pile of books; rising from each of these piles is a mass of conventionalized foliage of lilies of the valley. Enclosing all is a frame with an ovolo moulding. Below is a moulded panel with the title *Library of the University of Missouri*. The plate was originally signed *J. W. Spenceley, Boston, 1899.*"

In 1907, when the plate was re-engraved to form the law library plate, it assumed its present state and the engraver's name was re-engraved. The lower border has suffered several erasures. The gift plate was made by engraving "*the gift of*" on the lower margin; another plate made in the same way was "*The gift of Dr. Litton*". When the erasures of these words were made the engraver's name was also erased but restored later. Reproductions of the engraved plate have been made in three sizes for use in ordinary books. The best books still receive the engraved plate.



Book Plate

The idea of the book plate originated in the library committee. Doctor William George Brown, a member of the committee at that time, was specially interested in book plates. As a member of the Ex-libris Society, he was familiar with the work of the best engravers. The idea of getting a suitable book plate for the Library probably originated with him. He is known to have suggested the name of the artist who engraved the plate. Doctor Raymond Weeks, another member of the library committee, was instrumental in getting the plate. The executive Board appointed a committee with power to act to select a design and have it engraved.<sup>38</sup>

## 5. BRANCH LIBRARIES

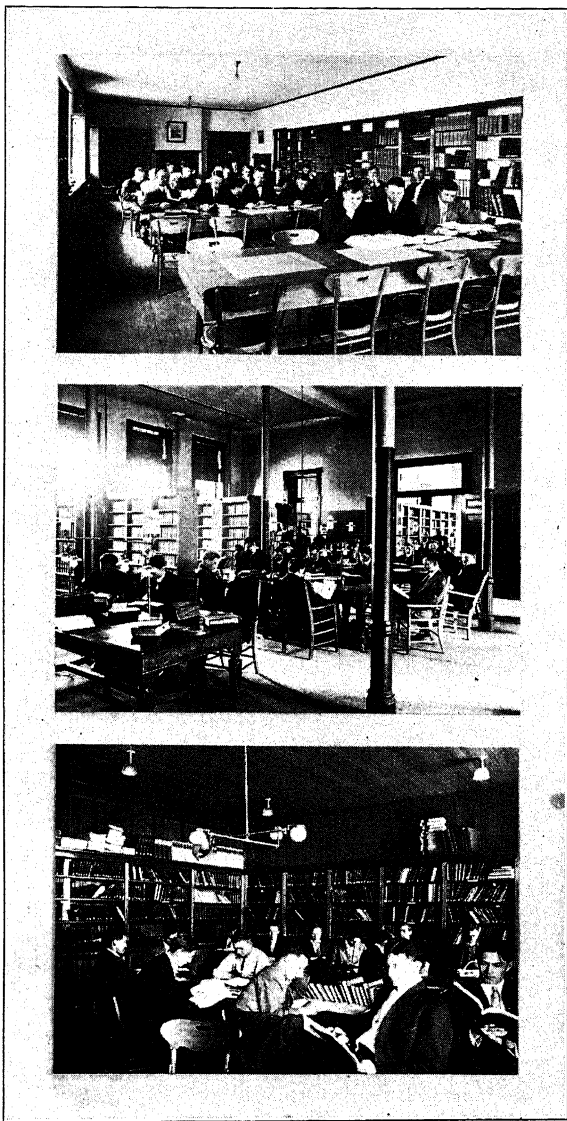
It has been the policy of the University Library for twenty years and longer to centralize its work. The administration of all the branch libraries is centered in the Librarian. The assistants in the branch libraries are appointed on his recommendation. The purchasing of books, the classification of them, the cataloging of them, the preparation of them for circulation are all done in the General Library where there are technically trained librarians. The Library recognizes no departmental ownership of books. The rules for circulation in the main library are extended to the branch libraries. There are so few laboratory collections that their administration is not a serious problem.

In 1900 the 30,000 books were distributed largely in the departmental collection. The Librarian in his annual report for 1900 states: "By a process of gradual absorption fifteen of the departmental libraries were combined with the General Library and the entire collection was strengthened." In 1907 there were still fourteen departmental collections in the University. The books were charged to the professor in charge of the department or laboratory. Theoretically, he was personally responsible for the care and the possible loss of the books.

It soon became evident that fewer collections properly cared for would render greater service. The books shelved in the three seminar rooms in Academic Hall—the classical, the romance, the political science, were placed in the stacks in the General Library where they became accessible to any student and to any faculty man any time during the day or evening. The chemical journals located in the Chemical laboratory, the Medical building, the Agricultural library, the Agricultural chemistry laboratory were collected and shelved in the General Library, a central place easily accessible by all the groups interested. In the cen-

39. The committee was: Walter Williams, member of the Board of Curators, Doctor Raymond Weeks, Professor of Romance Languages and Doctor John Pickard, Professor of Classical Archaeology.





Agricultural, Engineering, and Law Reading Rooms 1911

tralization of library administration and service, there have been five branch libraries established and developed,—the Agricultural, Engineering, Journalism, Law, and Medical, and three laboratory collections, the astronomical, the biological and the chemical. The collections in the branch libraries are supplemented by books on the same and allied subjects in the General Library.

## 1. AGRICULTURAL LIBRARY

The present agricultural library which has spacious and attractive stack and reading rooms in the new agricultural building dates from September, 1909, when the books from the office of the professor of animal husbandry known as "The agricultural library" and from the office of the Dean of the College of Agriculture were brought together in the agricultural building erected in 1909 on the east campus. The collection in the Dean's office was the Experiment station library which as early as 1889 had a separate room in the old agricultural building situated on the horticultural grounds. In 1895 this collection was moved to the Dean's office in the agricultural building on the west campus, now Switzler Hall, where it remained until it was combined with the collection from the office of the professor of animal husbandry, to form the agricultural library which was installed in the agricultural building on the horticultural grounds in 1909.

In Switzler Hall, the library occupied rooms adjacent to the office of Professor Frederick Blackmar Mumford, now Dean of the College of Agriculture, and Director of the Agricultural Experiment Station, on the second floor, northeast corner. This collection was begun in 1895 by Professor Mumford. With five volumes as a basis he built up a collection of twenty-five hundred volumes in five years.

When the collection was installed in the new building in 1909, the Horticultural library was merged in it. The books in the General library on agricultural subjects were transferred to the agricultural library. The library occupied two rooms at the west end of the second floor and a part of the third floor of the new building. This furnished a good stack room and a commodious reading room for that time. As the number of students increased and the Library grew the accommodations here became too limited. When the new building on the northwest corner of east campus was completed in 1923, the Library was moved to its present attractive and commodious quarters. Practically all the agricultural books which had accumulated in the general library owing to a lack of room in the agricultural library, were transferred to the new building so the collection now contains approximately 15,000 volumes.

A complete card catalog of the collection has been made and a card index of all the publications of the United States Department of Agri-



Agricultural Library 1925

culture has been added. The library has been in charge of a member of the library staff since its organization in 1909 when Miss Stella Blanche Hendrick was placed in charge. The organization of the library and its early development was largely due to Miss Hedrick who gave it her best service from 1910 to 1913.

## 2. ENGINEERING LIBRARY

The engineering library was established in 1905 as a separate collection of two thousand volumes in a room set apart for the purpose in the west annex of the engineering building. It was soon moved to its present location in the room opposite the front entrance to the building. The library was under the care of student assistants until 1913 when Mrs. Jane A. Hurty was secured as assistant in charge of the library. The library has grown rapidly in size and in efficiency. There are seven thousand volumes of well selected engineering books in the collection. The library receives currently 181 professional journals including the best engineering journals published.

## 3. JOURNALISM LIBRARY

The journalism library is the latest branch to be established. It was begun in a small way when the school was located in Switzler Hall, but when the school was moved to J. H. Neff Hall, ample provision was made for the new library which was moved in October, 1920, with the old furniture and fixtures into the attractive room, east end, first floor of Neff Hall. New tables, books, cases, pigeon holes, desk, shelving have since been added. Miss Julia Sampson has been in charge since its organization. Owing to the increase in students and the large additions to the library, the room is already too small. The library contains more than 2500 volumes including all the best books on Journalism and the professional journals, nearly all complete from the beginning. The library received currently in 1925 five hundred magazines and newspapers.

## 4. LAW LIBRARY

The law library is the oldest of the branch libraries. The Law School was opened in 1872 with a provision for the establishment of a library, which is really the laboratory for the School of Law. The library has always been separate from the main library and has always been in close proximity to the law lecture rooms and was under the supervision of the Dean of the Law School up to 1888 when the assistant professor of law was given charge of it. It was his duty to assist students in the use of the books and in the investigation of questions of law, and in the preparation of briefs and the like.



JOURNALISM LIBRARY 1925

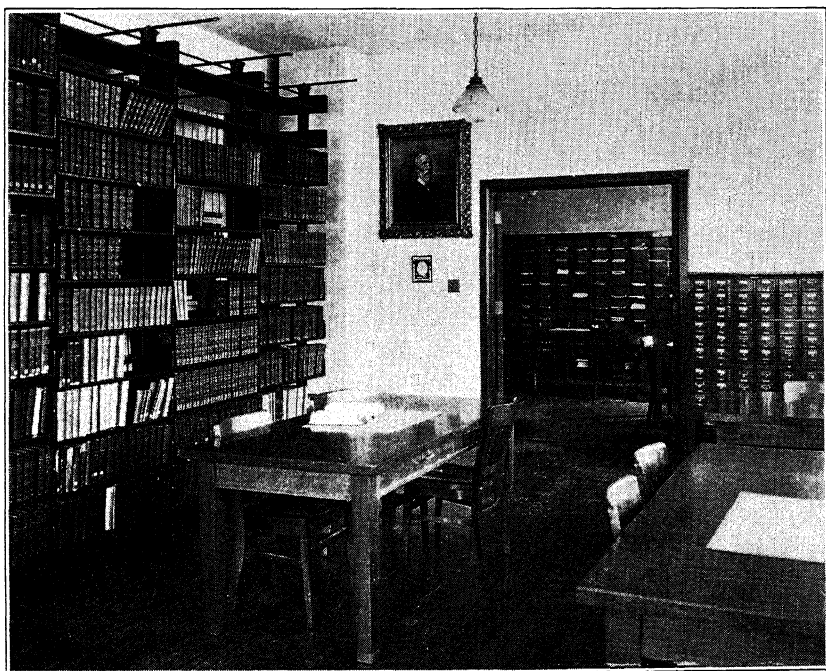


Law Library 1927

The law library has received more generous appropriations than any other branch library. In 1872 one thousand dollars was appropriated for the purchase of the first installment of books. In 1887, \$2,717.00 was expended for books and in 1893 \$1,234.38 was apportioned to the law library to replace such books as had been lost in the fire, when the main building was burned. From 1901 on, this library received biennial appropriations from the general Assembly ranging from three to five thousand dollars for the biennial periods. These amounts were supplemented for several years by the library and incidental fee collected from law students. Since the completion of the law building in 1893, the law library was housed in it until 1927 when it was moved into commodious quarters in the new Lee H. Tate Hall. The library contains more than 28,000 volumes and includes a full series of the reports of the Supreme Court of the United States and of practically all the federal, district, circuit, and appellate courts, and reports of the courts of all the states; also the American decisions, the American reports, and the American state reports, lawyers' reports, English ruling cases, a large collection of English reports and a complete file of the reporter system; also, complete sets of nearly all the legal journals both American and English, and a large collection of the latest and best law text books. Since 1907 a member of the Library staff has been in charge of the Law Library. The credit of bringing the library up to its present standard of equipment and efficiency is due largely to Percy A. Hogan, law librarian since 1915.

## 5. MEDICAL LIBRARY

The Medical School was opened in 1873. Only a few books were purchased for the school until 1903 when a room in the medical building, second floor, south side, was set apart for the library and all the medical books were collected and placed in it. It was in charge of the Dean's stenographer the first year, and was then placed in charge of a student assistant who continued to care for the room until 1921 when Mrs. Lula Testerman was added to the library staff, and was given charge of the Medical library. The library was transferred to adequate accommodations on the first floor of the new addition to McAlester Hall in the fall of 1923. The library has had a slow growth but it contains the standard medical journals of the world and numbers 8,884 volumes in addition to the publications on health and other subjects shelved in the general library. The medical literature, exclusive of biology, in the medical and general libraries is represented by about 15,000 volumes. The library receives currently 140 medical journals. With few exceptions the periodical files are complete from the beginning. Many of the journals are rare, such as Virchow's *Archiv für pathologische anatomie*, and Pflüger's *Archiv für die gesamte physiologie*. In the field of physiology



Medical Library

there are twenty-one primary journals and as many more devoted to other fields which have articles on some phase of physiology.

## 6. THE STAFF

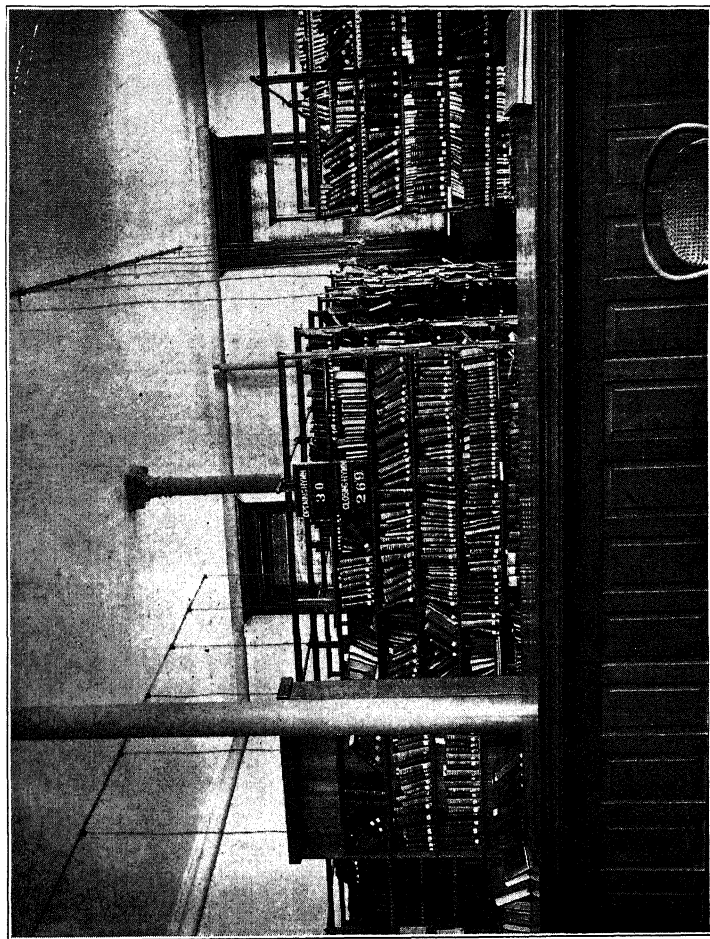
Walter King Stone was the only member of the library staff in 1899. James Thayer Gerould and four assistants constituted the staff in 1900. In 1925 there were twenty-two members of the staff which was not sufficiently large to handle all the business with dispatch. In selecting members of the staff the Librarian has acted on the principle of getting the best trained librarian he could with the salary at his disposal. The staff is organized into four groups or departments,—acquisition, catalog, circulation, and reference, with a head in charge of each. The best equipped librarians have been secured for these positions and for the work like cataloging, which requires assistants with technical training. Since 1907 the head catalogers have been University graduates with professional training, so also have the reference librarians. There have been eighty-nine members of the library staff, exclusive of copyists and secretaries, since the organization of the library. Of this number thirty have had collegiate degrees, and one assistant librarian held a doctor's degree. Many members of the staff have been elected to positions carrying greater responsibilities and salaries; for instance, Leta Adams, head cataloger, 1911-1912 is now head of the acquisition department in the Cleveland Public Library. Mary E. Baker, head cataloger, 1912-19 is librarian of the University of Tennessee. Grace Barnes, reference librarian, 1920-23, is librarian of the University of Maryland. Grace D. Phillips, in charge of periodicals, 1906-11, is librarian of the Divinity School, University of Chicago, Clarence W. Sumner, general assistant, is librarian of the Public Library System of Youngstown, Ohio.<sup>40</sup>

## 7. HOUSING

Two days after the great fire the Library was opened on Broadway, one door east of Gerling's restaurant. Then a room in the medical building was devoted to its use. Later the Library was located in the agricultural building, now called Switzler Hall. The northeast room on the first floor was used until the completion on July 22, 1895 of the new College of Arts building, called Academic Hall, now Jesse Hall, when the library was moved into a large room on the first floor of the west wing. As the library expanded to meet the increasing needs of reading room, stack, and work room space, it soon occupied the entire first floor of this wing. The stacks occupied the south end of the large room. Stacks were also placed in the north and south corridors which had been previously

40. For a list of the librarians and of the assistants in the library, see Appendix.





Stack Room 1907

partitioned off from the main corridor. The three rooms opening on the south corridor were occupied, one by stacks, containing pamphlets, and unbound material, the second by the librarian's office, the third by the cataloging department. The large room opening off the north corridor was made the periodical reading room, housing both the bound and the unbound periodicals. Two rooms, without windows but lighted artificially, one on the second floor, the other on the third floor, housed the depository collection of Government documents and of duplicate books and University publications.

Because of the addition of several thousand volumes a year, the stacks became too crowded to accommodate the new accessions. A readjustment became necessary. Wall stacks were built around the reading room. The stacks in the south end of this room were transferred to the librarian's office and to the catalog room. The current periodicals were shelved in the south end of this reading room. The cataloging department was transferred to the former periodical room and the librarian's office appropriated the north corridor. With the increased enrollment more reading room space became imperative. From 1906 to 1910 the enrollment doubled. The daily attendance in the reading room more than doubled. The main reading room accommodated one hundred students. The circulation ran up to 130,000 volumes a year in addition to the reference books used in the room.

In 1910 the large basement room in the west wing directly below the reading room was assigned to the library. A stairway was dropped from the main reading room to this basement room, the south end of which was designated as a study room for graduate study. The north end was filled with stacks where the scientific books were shelved including about six hundred volumes from the engineering library and eighteen hundred from the Medical library. The political science seminary room was abandoned and the books were placed in this basement room easily accessible to graduate students. The chemical journals shelved in several buildings were assembled here.

The library remained in this wing of the building until it was moved into the new library building in 1915.

The first agitation for a separate library building was started by Scott Hayes, librarian, in his annual report for 1878, where he calls attention to the liability to destruction of the library by fire and adds: "should the State provide a fire-proof building for library use only, then will the friends of the institution be willing to make large and valuable donations toward the enlargement of its usefulness".

Colonel William Franklin Switzler became interested in securing a new library in 1906. He received permission from the Board of Curators to enter into negotiations with John B. Henderson of Washington, a



Reading Room and Stacks 1907



Reading Room 1911

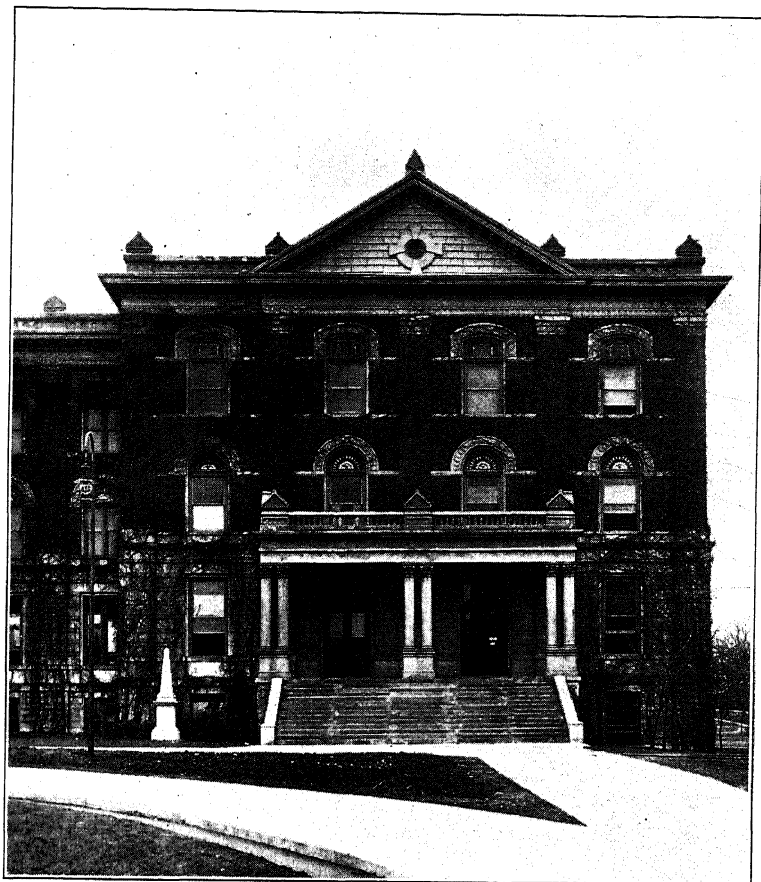
former Missourian, a public man of influence and a friend of Andrew Carnegie. Mr. Henderson secured the attention and consideration of Mr. Carnegie who had provided a fund for founding libraries. After considering the data relative to the University and to the library Mr. Carnegie declined to assist and added that he thought the library was well housed.

The next important movement was an unsuccessful attempt to induce the General Assembly of the State to appropriate the War fund of four hundred seventy-five thousand one hundred and ninety-eight and thirteen one hundredths dollars (\$475,198.13) which had been paid on April 8, 1905, to the treasury of the State of Missouri by the Federal treasury on account of expenses incurred and paid in maintaining troops employed as volunteer soldiers during the civil war, 1861-1865, for a Soldier's Memorial building on the campus, which would house the University and State Historical libraries, as well as army relics and trophies.

A vigorous campaign was inaugurated in which the Missouri press took a prominent part as well as many influential citizens. Senators and representatives were strongly urged to support the bill. The University news letter devoted one number to a discussion favorable to the passage of the bill. A quarto booklet was issued entitled: "The Proposed Soldiers' Memorial Building on the Campus of the University of Missouri. ." which set forth the arguments in favor of the memorial building. The bill introduced into the Assembly appropriating the War Fund for the Memorial building was defeated by the advocates of good roads. The fund was appropriated for improving the highways of the state.<sup>41</sup>

No further efforts were made towards securing an appropriation for the library building until the meeting of the General Assembly of 1909, when the President and the Board of Curators urgently requested an appropriation of \$250,000 for a building. However, the request was not granted, owing to lack of funds and to the failure of the General Assembly to provide for an increase of revenue. The Assembly of 1911 was also urged to make an appropriation for this purpose, but without avail. It remained for the Assembly of 1913 to provide adequately for housing the libraries of the University and of the State Historical Society. The President, Doctor Albert Ross Hill, was able to secure the largest appropriation ever made by the Assembly to the University up to that date, a total amounting to \$1,579,165.00. Included in this sum was \$200,000 for the central part of a library building and \$75,000 for a site. The site is the entire block bounded by Conley, Ninth, Lowry, and Hitt streets, connecting the old campus with the new, or the West campus with the East Campus. The average width of the block is three hundred

41. House Bill 34. Extra session April 9, 1907. Sec. 70.



WEST WING JESSE HALL  
Where the Library was Housed 1895 to 1915

and ninety feet and the average length is four hundred and seventy-three feet. The block has a higher elevation than either the East or the West campus and forms a connecting link between the two.

The building now completed and occupied forms the central portion of the whole library as planned. The architecture of the building is that of the English renaissance. The reading room on the second floor is marked by an Ionic colonnade standing on a solid rusticated first story. The exterior walls are of cut lime stone and the roof of green slate on concrete. The construction throughout is as fire proof as it has been possible to make it. Doors and door trims are of steel. Windows everywhere except on the front are of metal with wire glass, stairways are of iron and marble, and altogether the total amount of inflammable material in the structure of the building is barely enough to make one small bonfire, if all were collected together.

On the second floor is the main reading room, one hundred and thirty feet by forty-two feet with tables for 260 readers, having metal stacks around the walls with a capacity of 10,800 volumes. These book-cases and the doors, etc., although of steel, are finished in a soft color like oak. The tables, chairs, and delivery desk are of similar oak and the floor covering is of cork tiling.<sup>42</sup>

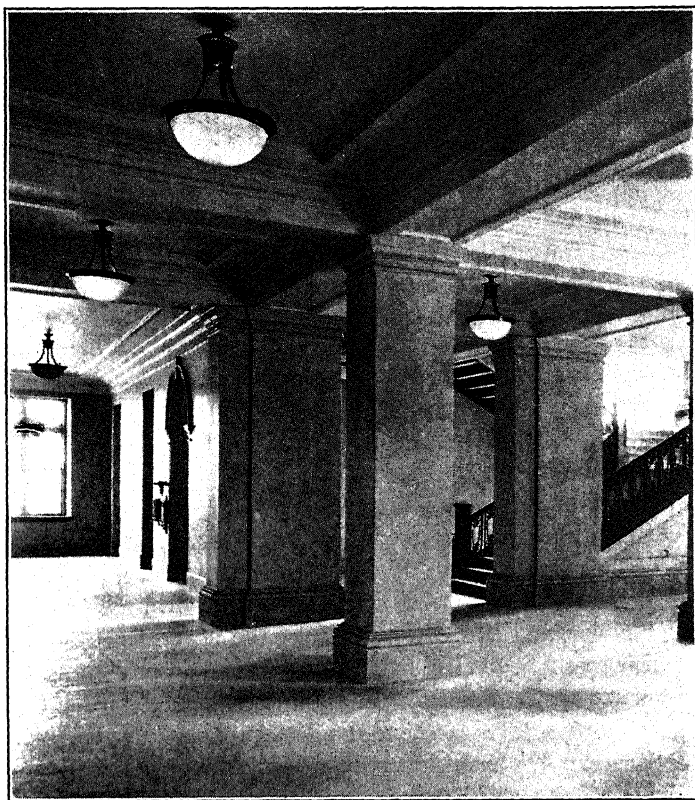
## 8. LIBRARY WAR SERVICE

The University Library was one of the centers for the collection and distribution of books for the soldiers. The book campaign was made by the American Library Association in March and April, 1918. The citizens of Columbia contributed 1925 volumes, and the surrounding towns, such as Bowling Green, Salisbury, and Huntsville, donated 1,183 volumes. All of these were prepared for circulation by members of the library club and were dispatched to libraries in the neighboring camps.

The librarian organized the library service at Camp Funsten in 1917, and served as librarian of Camp Custer during August, 1918. In the following spring, the librarian received a request from the Library War service to visit camp libraries and stimulate the study and reading of vocational books. After the completion of this service which required six weeks' time and a visit to the camps in Kentucky, Louisiana, Arkansas, Oklahoma, Texas, New Mexico, Arizona, and Southern California, he was invited to become assistant director of the Library War Service in Washington in charge of Camp libraries.<sup>43</sup> On the completion of this service, he was invited to go to Coblenz, Germany, to take charge

42. For a complete description of the building consult the *New Library Building*, 1915, published by the University.

43. The leave of absence extended from April 20th to August 31.



Entrance Lobby and East Stairway

of our Army work in the occupied territory. Six months' leave of absence was granted. Plans were somewhat modified so that he became the acting European representative of the American Library Association with offices in the American Library in Paris, of which he was librarian, and supervisor of the Army library work in Coblenz. Four library assistants, Annalee and Ella Peeples, Bessie M. Roberts, and Inez Spicer entered the War Service and were assigned duties in Washington. There were fourteen students who either then or earlier had been employed in the library, who entered the service. Eleven entered the Army, seven became lieutenants or captains, one each entered the Navy, the Marines, and the S. A. T. C.<sup>44</sup>

## 9. INSTRUCTION IN BIBLIOGRAPHY AND LIBRARY METHODS

The first course in library methods in the University was offered by Mr. Gerould in the summer school of 1903. A formal course was not given but a few apprentices were admitted to the library and individual instruction was given them.

The next course was offered in the University summer school of 1908 and a credit of three hours was given in the Teachers' college for the work. The class met five times a week. The instruction was given by Mr. Severance, Misses Lefler, Phillips, and Bond, of the library staff. Five students were enrolled.<sup>45</sup>

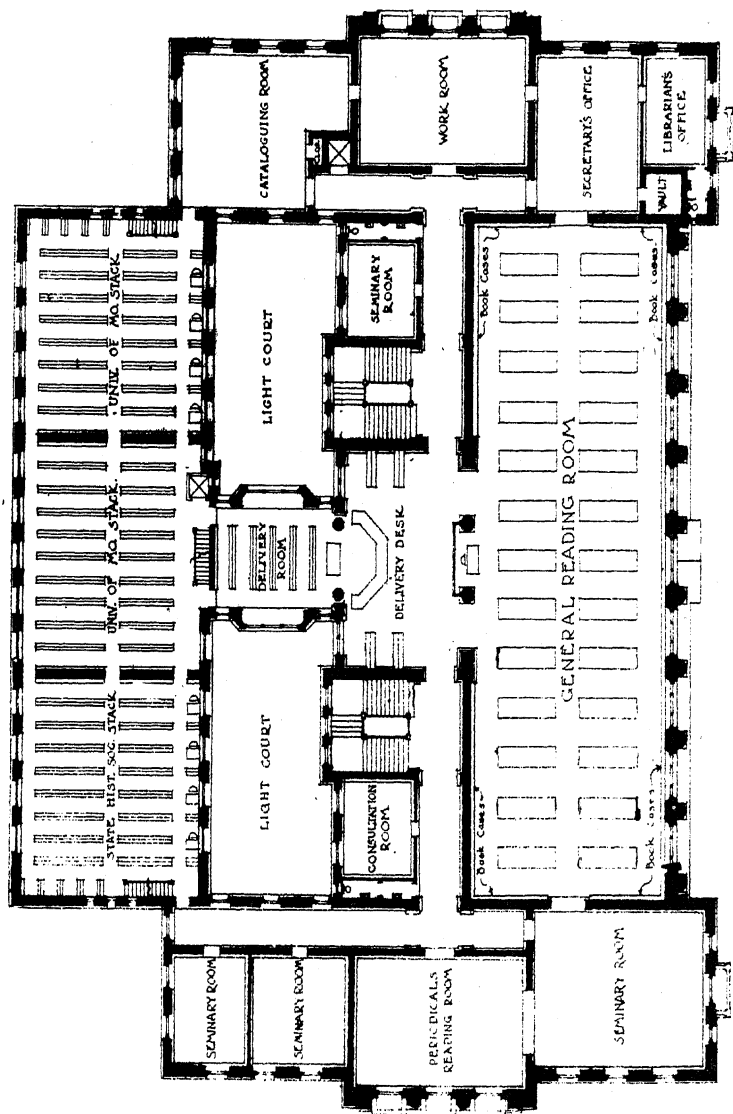
The first summer library school was held in 1912 when three courses were offered with eight hours credit in the School of Education, which required the full time of the students for six weeks. Miss Florence Whittier, assistant librarian, was director of the work, assisted by Mrs. Harriet P. Sawyer, and Miss Effie Power of the St. Louis Public Library and Miss Elizabeth B. Wales, Secretary of the Missouri State Library Commission. The St. Louis Public Library and the State Library Commission cooperated with the University in furnishing personnel and in the expenses. Under this cooperative arrangement the summer library school was held in 1912, 1914, 1916, 1918, and 1921 with nine students registered for the full work in 1912; eleven in 1914; sixteen in 1918; thirty-three in 1921 and eighteen in the course for teachers in 1921.

In 1909-1910 the librarian gave four lectures in the course on Professional terminology in the School of Journalism. In 1910-1911 during the first semester he gave a course in bibliography in which fourteen students were enrolled. It was a one-hour course with one hour's

44. See Appendix for the list of names.

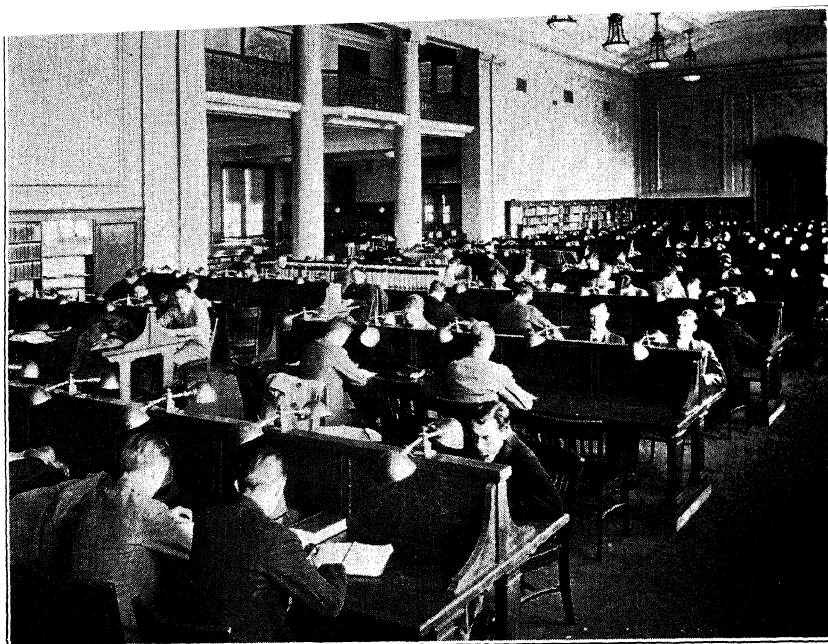
45. The members of the class were: Alma Leora Turner, Inez Spicer, Eliza Russell Edwards, Stella Laura Kerner, Frances I. Nise.



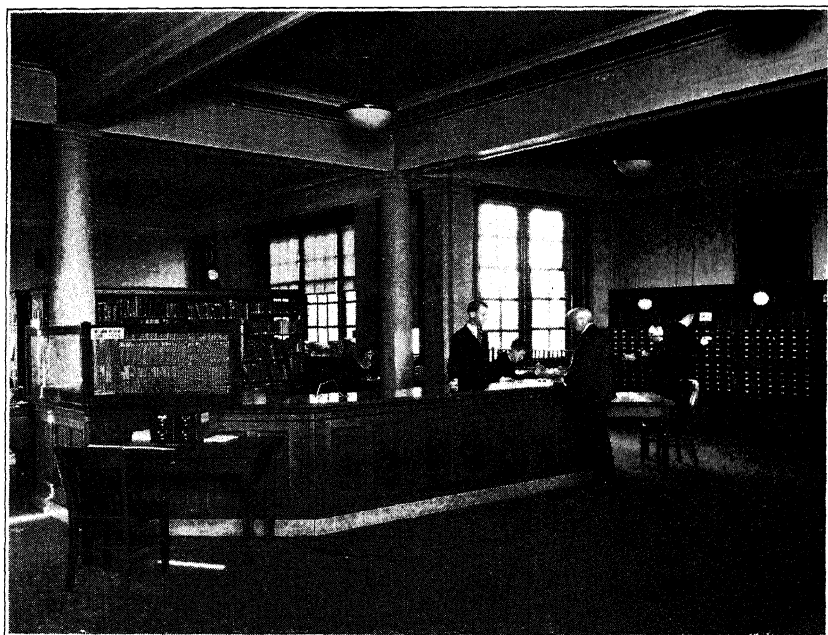


SECOND FLOOR PLAN

THE LIBRARY OF THE UNIVERSITY OF MISSOURI  
AT COLUMBIA MO.



Main Reading Room



Delivery Desk and Stack for Reserved Books

credit. The course was designed to acquaint the students with the best reference books. This course was continued under the title of "Reference Books for Journalists" until 1920.

In the School of Education, a one-hour course, with one hour's credit, was given throughout the year 1910-1911. The aim of this course was to fit teachers to care for small libraries. Six students were enrolled the first semester and thirty the second. The work was given by Mr. Severance, Miss Phillips and Miss Whittier. Beginning with the fall of 1911 a two-hour course in library methods was given in the fall and winter terms until 1919 when the course was discontinued.

A course "Library Methods for Teachers", which was designed to fit high school teachers to organize, classify and catalog high school libraries, was first offered in the summer of 1912. There has been such a demand for this work that the course has been given every summer since that date.



Where the books are cataloged

## APPENDIX

Librarians.....	83
Assistants in the Library.....	83
List of Books Presented by Dr. W. K. Bixby.....	88
Library War Service Roll.....	89
Map Library Extension Service.....	91
List of Works Consulted.....	90



## LIBRARIANS OF THE UNIVERSITY

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Robert Stuart Thomas, A. M.	1849-1853
Bolivar Stark Head, A. M.	1853-1860
Edward T Fristoe, A. M.	1860-1862
Joseph Granville Norwood, A. M., M. D., LL.D.	1862-1877
Scott Hayes, M. S., M. Ag.	1877-1880
Joseph Hudson Drummond, A. B., A. M.	1881-1887
John Watson Monser	1887-1897
Walter King Stone, A. B.	1897-1900
James Thayer Gerould, A. B.	1900-1906
Henry Ormal Severance, A. M.	1907-

## ASSISTANTS IN THE LIBRARY

1841—1927

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Adams, Leta, A. B., B. L. S.	Head Cataloger 1911-12
Alexander, Eula	Periodical Clerk 1919-24
Allen, Jesse M.	Assistant Cataloger 1902-05
Alsberg, Pauline	Order Clerk 1918-19
Auten, Agnes	Assistant Cataloger 1925—
Baker, Mary Ellen, A. B., B. L. S.	Head Cataloger 1912-19
Baker, Rose, A. B.	Assistant Reference librarian 1921-22
Barnes, Grace, B. S., B. L. S.	Reference Librarian 1920-1923
Barnes, Lois	Assistant Cataloger Feb. 1921 to Dec. 1923
Berkowitz, Mary L.	Periodical Clerk 1918-1919 Assistant in charge of the Agricultural Library Mar. 15 to Aug. 1, 1919
Bixby, Harriet	Assistant in charge of the Agricultural Library 1913-14
Bolles, Barbara, A. B., B. S.	Assistant Cataloger 1916-19
Bond, Bertha J., A. B., B. L. S.	Assistant Cataloger 1907-11
Bradish, Amy E.	Order Clerk 1919-20
Brown, Dorothy	Periodical Clerk Sept. 1923 to Jan. 1924
Bucklew, Lillian	Secretary to the Librarian 1912-14
Burnet, Duncan	Head Cataloger 1901-06
Butterfield, Mary W.	Copyist 1902

Claypool, Elizabeth.....	Secretary to the Librarian 1919-24
Collins, Will Howard, A. B., B. L. S.....	Reference Librarian 1923-25 Assistant Librarian 1926—
Cratty, Estelle Fay, A. B.....	Periodical Clerk 1902-06
Currie, Florence Baxter, B. L., B. L. S.....	Head Cataloger 1919—
Daniels, Francis Potter.....	Periodical Clerk 1902-06
Doneghy, Virginia, A. B.....	Assistant Cataloger 1923-24
Dougherty, John Herman, A. B.....	Assistant at Loan Desk 1924- 1927
Douglass, Anne M.....	Secretary to the Librarian 1911-12
Dunlap, Fannie, Ph. B., B. L. S.....	Assistant in Charge of Circu- lation 1918-19 Reference Librarian 1919-20
Easton, Valeria.....	Assistant Reference Librarian 1915 Assistant in Charge of Circu- lation 1916-18
Elliott, Ada McDaniel.....	Assistant Reference Librarian 1922 Extension Reference Librari- an 1923—
Elliott, Henry Walter.....	Assistant 1883-1885
Fearnley, Virginia.....	Assistant Cataloger, 1924-25
Finney, Dora, A. B.....	Assistant in Charge of the Ag- ricultural Library 1915- 17 Order Clerk 1920-21
Fitch, Eva Lillian, A. B.....	Assistant Cataloger 1913-14
French, Floy E.....	Assistant Acquisition Depart- ment 1924—
Frodsham, Jane.....	Loan Desk 1919-20. In Charge of Agricultural Library 1920—
Goulding, Philip Sanford.....	Head Cataloger 1900-01
Hayes, Ida.....	Assistant Librarian 1881-83
Hedrick, Stella Blanche.....	Accession Clerk 1907-08 Assistant in charge of Agri- cultural Library 1909- 1913, 1919-1920 Head Acquisition Department 1921—
Hickok, Annie Estelle.....	Copyist 1900-01



Higginbottom, Maude.....	Secretary to the Librarian 1906-11
Hilliker, Mary Jane.....	Assistant Acquisition Depart- ment 1924-26
Hogan, Percy Anderson.....	Law Librarian 1915—
Hudson, Abbie, B. S.....	Assistant Cataloger 1918-20
Howell, Allie.....	General Assistant 1918-20
Hurty, Jane A.....	Assistant in Charge of Engi- neering Library 1913—
Jaeck, Elsie, A. B.....	Head Circulation Department 1924—
Jeffers, Samuel Allen, Ph.D.....	Acting Librarian Dec. 1919 to Aug. 1920 Assistant in Charge of Circu- lation 1920-21 Assistant Librarian 1921-23
Kinealy, Grace.....	Periodical Clerk 1915-16
Kirk, Marian.....	Assistant Cataloger 1919-20
Kirkland, Meda.....	Copyist 1900
Kirtley, Alice.....	Secretary to the Librarian Mar. to June 1919
Lefler, Grace, B. L. S.....	Cataloger 1904-06 Head Cataloger 1906-10
Lloyd, Lorine.....	Assistant Cataloger June, July 1920
Ludwig, Hazel.....	Order Clerk 1917-18
McCabe, Priestly H.....	General Assistant 1915-18, 1923—
McCaughtry, Ruth, A. B.....	Assistant Cataloger 1918-20
McKee, Frances Ethlyn.....	Secretary to the Librarian 1924-26
McLean, Sarah Erwin.....	Typist 1914
Monser, Harold E.....	Assistant 1887-89 (without official appointment)
Moore, Edna G., M. A.....	Assistant Cataloger 1915-16
Moore, Fannie B.....	Assistant in Charge of Fresh- man Reading Room 1921- 1927 Assistant in "reserved book" reading room 1927—
Moss, Margaret.....	Secretary to the Librarian 1918-19

Nowell, Mildred.....	Secretary to the Librarian 1926—
Ogle, Rachel, A. B.....	Periodical Clerk 1913-15
Owen, Lynn Schill .....	Copyist 1903-06
Pape, Freda.....	Assistant at Loan Desk, 1922- 1927 Assistant in charge of "reserv- ed book" reading room 1927—
Parsons, Emma K.....	Charging Clerk 1912-15 Reference Librarian 1915-19
Peebles, Annalee.....	Periodical Clerk 1916-1917 Assistant in Charge of the Ag- ricultural Library 1917- 18 Assistant Loan Desk 1920-23 Assistant in Charge of Circu- lation 1923-24
Peebles, Ella.....	Assistant Cataloger 1914-18
Peters, Louise, M. A.....	Assistant Cataloger 1914-15
Petty, Mrs. V. C.....	Assistant in Charge of the Freshman Reading Room 1920-21
Phelps, Edith Allen.....	Assistant Cataloger 1900-02
Phillips, Grace Darling, B. L. S.....	Periodical Clerk 1906-11
Phillips, Marie.....	Secretary to the Librarian 1915-18
Remley, Eunice C., A. B.....	General Assistant 1920-22
Roberts, Bessie M.....	Order Clerk 1913-17
Rogers, Alice.....	Assistant in Charge of the Ag- ricultural Library 1918- 19
Sampson, Julia.....	Assistant in Charge of the Freshman Reading Room 1915-19 Assistant in Charge of the Jour- nalism Library 1920—
Savage, Elta Virginia, A. B.....	Order Clerk 1911-12
Schwartz, Fenimore, A. B., B. L. S.....	Assistant in Charge of Circu- lation 1919-20
Scott, Virginia.....	Secretary to the Librarian June-Sept. 1919
Shepard, Anna May, A. B.....	Assistant Cataloger 1921-22

Sinclair, Elizabeth May, B. L.	Copyist 1902-03 Charging Clerk 1905-08
Smith, Emily Bird	Assistant Cataloger 1919-20
Snoddy, James Samuel	Assistant Librarian 1885-87
Spicer, Helen Margaret	Copyist 1901-02
Spicer, Inez, B. S.	Periodical Clerk 1911-13 Assistant Cataloger 1915-18, 1921—
Stephens, Howard Peyton	Assistant Loan Desk 1923-24
Stone Walter King, A. B.	Librarian 1897-1900 First Assistant Librarian 1900-11 Law Librarian 1911-15
Stumm, Helen	Secretary to the Librarian July, August 1924
Sumner, Clarence Wesley, A. B.	Assistant in Charge of Night Service 1908-11
Tandy, Ruth Estes	Accessions Clerk 1910-13
Testerman, Lula	Assistant in Charge of the Medical Library 1921—
Tiffany, Elizabeth	Charging Clerk 1908-12
Trask, Louise	Periodical Clerk 1917-18
Walker, Elizabeth Mount	Secretary to the Librarian 1911
Webb, Katherine	Assistant Cataloger (halftime) 1920
Wheeler, Louise Clayton	Periodical Clerk, Order Clerk, and Assistant Cataloger 1911-15
Whittier, Florence, A. B.	Assistant Librarian 1910-15
Williams, Frieda, A. B.	Assistant Cataloger 1922—
Williams, Henry Clay	Assistant 1891-92
Wilson, Ruth	Secretary to the Librarian 1914-15
Worth, Lynn G.	Assistant Cataloger 1919-20
Wykes, Sadie P.	Assistant Cataloger 1912-13
Young, Grace L.	Assistant Acquisition Depart- ment 1923 Assistant Cataloger 1924-25

## LIST OF BOOKS PRESENTED BY WILLIAM KEENEY BIXBY 1905 to 1924

---

Poems and letters in the handwriting of Robert Burns reproduced in facsimile through the courtesy of William Keeney Bixby and Frederick W. Lehmann by the Burns club of St. Louis, with an introduction and explanatory notes by Walter B. Stevens, Saint Louis, printed for the Burns club, 1908. (Three hundred copies printed on Dutch hand-made paper; with the club water mark, "The Burns Club of St. Louis". This copy is number 298)

The private journal of Aaron Burr reprinted in full from the original manuscript in the library of Mr. William Keeney Bixby, of St. Louis, Mo. with an introduction, explanatory notes and a glossary. In two volumes. Rochester, N. Y. 1903. (Two hundred fifty copies printed. This copy is number 147)

Charles Dickens and Maria Beadnell ("Dora") Private Correspondence between Charles Dickens and Mrs. Henry Winter (nee Maria Beadnell), the original of Dora Spellow in "David Copperfield" and Flora Finching in "Little Dorrit" edited by Professor George Pierce Baker of Harvard University. Privately printed for William Keeney Bixby, Saint Louis, MDCDVIII. (Two hundred fifty copies printed on Dutch hand-made paper with the water mark "Made in Holland W. K. B." This copy is number 243)

Note books of Percy Bysshe Shelley from the originals in the library of W. K. Bixby. Deciphered, transcribed, and edited with a full commentary by H. Buxton Forman, C. B. In three volumes. Privately printed for William K. Bixby, St. Louis, Mo. MCMXI (Two hundred and fifty copies printed on Dutch hand-made paper with water mark, "Made in Holland W. K. B." This copy is number 126)

My book to William C. Buskett with the affectionate regards of his friend, Eugene Field, with vignettes by C. M. Seyppel. (A facsimile of Eugene Field's autograph verse issued for private circulation. This copy is number 171)

Hamilton's Itinerarium being a narrative of a journey from Annapolis, Maryland through Delaware, Pennsylvania, New York, New Jersey, Connecticut, Rhode Island, Massachusetts, and New Hampshire from May to September, 1744 by Doctor Alexander Hamilton edited by Albert Bushnell Hart, LL.D., Professor of History in Harvard University. Printed only for private distribution by William Keeney Bixby, Saint Louis, Missouri—MCMVII (Four hundred and eighty copies printed on Dutch hand-made paper with the water mark "Made in Holland W. K. B." This copy is number 223)

Letters from George Washington to Tobias Lear with an appendix containing miscellaneous Washington letters and documents reprinted from the originals in the collection of Mr. William Keeney Bixby of St. Louis, Mo. With introduction and notes. Rochester, N. Y. 1905. (Three hundred copies printed. This number is 187).

Letters of Zachary Taylor from the Battlefields of American War reprinted from the originals in the collection of Mr. William Keeney Bixby of Saint Louis, Mo. With introduction, biographical notes, an appendix, and illustrations from private plates, Rochester, N. Y. 1908. (Three hundred copies printed. This is No. 211)

Thomas Jefferson Correspondence printed from the originals in the collections of William Keeney Bixby with notes by Worthington Chauncy Ford. Boston 1916. (Two hundred and fifty copies printed. This is number 107) (Water mark "Tuscany Italy")

Verse and prose by Eugene Field from the George H. Yenowine collection of books and manuscripts. Edited by Henry H. Harper with an introduction by William P. Trent. One hundred copies by the owner of the collection for complimentary distribution. William K. Bixby, Saint Louis, Missouri. MC MX VII.

*The following are listed by short titles*

Laurence Sterne's letter to the Rev. Mr. Blake 1915. (200 copies printed. This is number 130)

Burns nights at the Burns Club of St. Louis. 1918. 2. St. Louis Burnsians. Their twentieth anniversary and some other Burns nights. 1924.

The Elopement of Percy Bysshe Shelley and Mary Wollstonecraft Godwin as narrated by William Godwin. 1911. (Two hundred copies printed. This is copy number 52.)

Holograph letter of Charles I. 1915. (Two hundred copies printed. This is number 130)

Letter of Maria White (Mrs. James Russell) Lowell to Sophia (Mrs. Nathaniel) Hawthorne. (This is number 50)

Lincoln letters 1913. (This is number 29)

Some Edgar Allen Poe letters. 1915. (Two hundred copies printed. This is number 130)

Stonewall Jackson's way by J. W. Palmer. 1915 (Two hundred copies printed. This is number 130)

Two letters from General William Tecumseh Sherman to General U. S. Grant and William T. McPherson. 1919. (Fifty copies printed. This is number 32)

## LIBRARY WAR SERVICE ROLL

1918—1919

Cross, Claude B.	Lt.
Head, Guy Vernon	Capt.
Longwell, Chester	Capt.
Phillips, George	
Longwell, John Harwood	Lt.
McCowen, George B.	
Bryant, Janes Ryan	Lt.
Riley, George Terry	
Colbert, Herschel	Capt.
Cowherd, Carson E.	Lt.
Minnis, J. Fay	
Love, J. Arthur	Navy
Johns, Delos C.	Marines
Trowbridge, Hugh	(S. A. T. C.)

## LIST OF WORKS CONSULTED

## University of Missouri

Board of Curators, Manuscript proceedings 1839-1910

Board of Curators, Biennial reports to the General Assembly 1881-1925

Board of Curators, Annual reports to the Governor 1870-1925 (In the annual Catalogue)

Board of Visitors. Report to the Governor on the condition and needs of the University 1908-1924

Bulletins 1900 to date

Catalogues 1843-1925

Catalogue of the Books belonging to the Library of the University of Missouri and to the libraries of the literary Societies 1857

Catalogue of the Books belonging to the Library of the University of Missouri 1888

Executive Board. Manuscript proceedings 1869-1910

Librarian's Report 1901-1925

(Earlier reports are found in the catalogues)

Library Committee. Manuscript proceedings 1892-1900

Manuscript inventory of the General Library 1897

President's Annual Reports to the Board of Curators 1900-1907 (Several earlier reports are in the Proceedings of the Board of Curators)

Cole, Redmond S. The Organization of the Athenaeum Society (Columbia, Mo. Sentinel March 27, 1908)

Hodge, J. W. The United States Biographical Dictionary and portrait gallery of eminent and self made men. Missouri volume. Chicago, 1878.

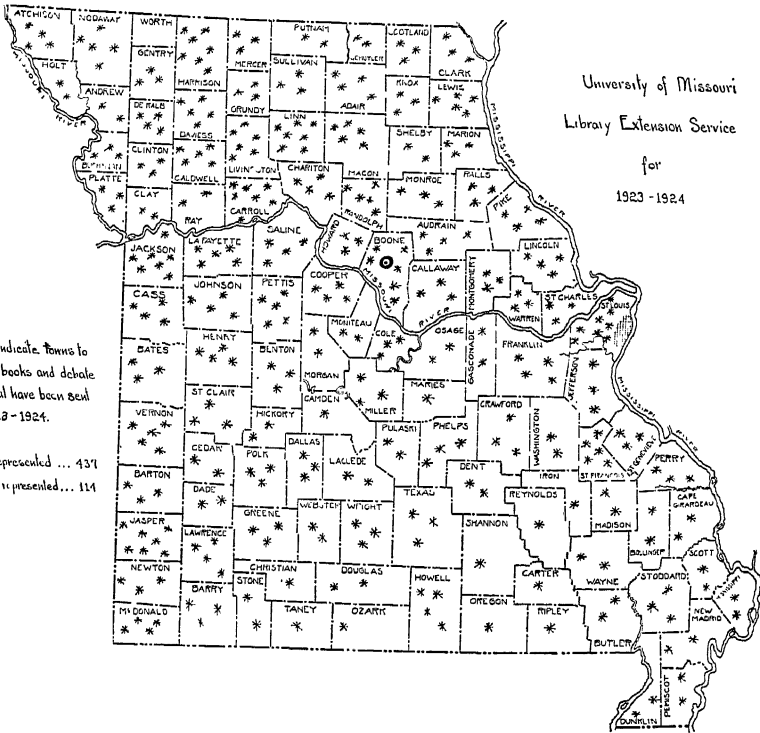
Lowry, Thomas Jefferson. A sketch of the University of the State of Missouri. Columbia (1890)

Missouri Statesman. 1866-1900

Read, Daniel. Historical sketch of the University of Missouri. Washington. 1883

Switzler, William Franklin. History of the University of Missouri (in manuscript)

Wauchope, George Armstrong. The history of the burning of the University on the night of January 9th, 1892. Prefaced with an argument in favor of the retention of the Old University Columns, with contemporary newspaper clippings. 1894. (In manuscript)

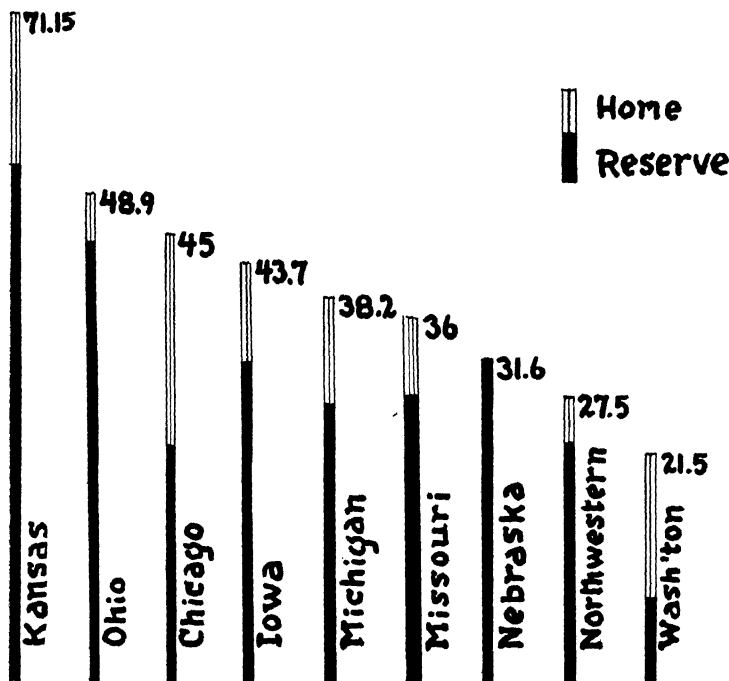


1895	15 984 volumes
1897	23 320
1899	24 890
1901	37 322
1903	50 000

1907	81 563
1909	96 340
1911	110 816
1913	130 117
1915	148 116
1917	161 470

1921	188 889
1923	209 034
1925	231 366

### Growth of Library



Circulation per student - 1925



Washington	\$ 15.01
Michigan	9.00
Illinois	8.07
Minnesota	7.36
Missouri	6.93
Iowa	6.73
Ohio	6.15
Wisconsin	6.06
Northwestern	5.14
Kansas	5.11
Nebraska	4.73
Chicago	4.30

### Book appropriation per student

Washington	105.1
Michigan	59.6
Illinois	59.1
Chicago	53.6
Kansas	45.3
Northwestern	44.4
Wisconsin	42.2
Minnesota	37.7
Missouri	34.8
Ohio	31.1
Iowa	31.1
Nebr.	21.4

### Books per student

1 9 2 5

## INDEX

- Academic Hall. Burned.....32  
 Acquisitions.....32, 49-52  
 Adams, Charles Kendall, quoted.....13  
 Adams, Leta.....68  
 Administration. Centrization.....60  
 Affiliated Libraries  
   Columbia Public Library.....36  
   Athenaeum Society Library.....36, 40  
   Union Literary Society Library.....36, 40  
   State Historical Society.....40  
 Agricultural Extension.....56  
 Agricultural Experiment Station  
   Library.....62  
 Agricultural Library.....62  
   Catalog.....58, 62  
   Reading Room 1911.....61  
   Reading Room 1925.....63  
 Agricultural Publications for ex-  
   change.....53  
 Aids to encourage reading.....55  
 Alabama University.....25  
 Allen, Edward Archibald.....52  
 Alsace-Lorraine.....50  
 American Library Association.....29  
   Representative in Paris.....76  
 American State Trials.....52  
 Appleton, D. & Co., gifts.....24  
 Appropriations for books, periodi-  
   cals, etc.....13, 19, 21, 22, 24, 32, 45, 48, 49  
   Graph showing appropriation for  
   twelve universities per student.....93  
 Archives parlementaires.....50  
 Assistants in the Library.....83-87  
 Association for providing periodicals  
   and keeping the reading room  
   open.....24, 33  
 Association of American Universities.....45  
 Athenaeum Society Library.....28, 30, 33, 39-40  
   loss on account of soldiers.....28  
 Baker, Mary E.....68  
 Barnes, Grace.....68  
 Bibliography, course in.....76  
 Bibliotheque national. Catalogue.....51  
 Binding.....47  
 Biology.....51  
 Bixby, William K. Gift of rare books  
   .....52, 88, 89  
   Lawson Library.....52  
 Bodleian Library.....26  
 Bond, Bertha.....76  
 Bonne Femme Baptist Church.....21  
 Bonne Femme College. Gift of  
   books.....20  
 Bonus for locating University at  
   Columbia.....19  
 Book plate.....58-60  
 Books, in the Library.....24, 25, 92  
   in locked cases.....26  
   rooming houses.....26  
   first purchase.....20  
   first gift.....20  
   loss of books.....26, 28, 55-56  
   mutilation.....55-56  
   theft.....55-56  
 Books per student, in twelve uni-  
   versities. Graph.....93  
 Book stacks.....54, 68, 69, 71, 77  
   closed to students.....25, 54  
 Branch libraries.....60  
 Brooks, Stratton D.....13  
   portrait.....9  
   foreword.....11  
 Brown, William George.....13, 58  
 Brown University Library.....19  
 Burns, Robert, poems.....52, 88  
 Burr, Aaron, private journals.....52, 88  
 Camp Custer Library Service.....74  
 Camp Funston Library Service.....74  
 Campus, appropriation for fencing.....22  
 Campus gateways.....28  
 Card catalogs. See, catalogs  
 Cards. See, catalogs.  
 Carnegie, Andrew.....72  
 Cataloging.....57  
 Catalogs.  
   Early printed catalogs.....25, 26, 32  
   Card catalogs.....29, 47, 57, 58  
   Catalog of John Ryland's Library.....57  
   Catalog of Bibliotheque national.....57  
   Catalog of the Agricultural Li-  
   brary.....58, 62  
   Catalog of the Engineering Li-  
   brary.....58  
   Catalog of the Journalism Li-  
   brary.....58  
   Catalog of the Law Library.....58  
   Catalog of the Medical Library.....56, 58  
   Catalog of the Library of Congress.....54  
   National catalogs.....57  
   Revision of public catalog.....57  
 Charging system, day-book.....34, 47  
 Chemical journals.....60, 70  
 Cicero.....50  
 Circulation.....25, 33, 53-55, 70  
   reserved book collection.....54  
   reference collection.....54  
   periodical literature collection.....55  
   non-residents.....56  
   library extension, map.....91  
 Circulation of books per student in  
   nine universities, graph.....92  
 Civil War.....22  
 Classical literature.....50  
 Classification. Dewey decimal.....47, 57  
   revision.....58  
 Clippings for circulation.....56  
 Cockrell, Francis M., gift of govern-  
   ment documents.....51-52  
 Collection of documents inedits sur  
   l'histoire de France.....51

College of Agriculture, location.....	22	Gerling's restaurant.....	32, 68
Land-Grant by Federal Govern- ment.....	22	Gerould, James Thayer.....	45, 68
Columbia Public Library.....	29, 33	portrait.....	46
history.....	36, 38, 40	reorganization of library.....	47
Columbia College.....	19	course in library science.....	76
Commencement dinners.....	37	quoted.....	60
Committee on discipline.....	55	Gifts, by Minor.....	20
Conley, Sanford Francis.....	38	Bonne Femme College.....	20
Courses of instruction in the Uni- versity.....	19, 20	Dockery.....	24
Courses of instruction offered by the library staff.....		publishers.....	24
Summer library school.....	76	Massachusetts and Missouri.....	21
professional terminology.....	76	Tiffany.....	51
Library Science.....	79	Ellyson.....	51
Library Methods for Teachers.....	79	Osler.....	51
Crime. Lawson Library.....	52	Minister of Public Instruction, France.....	51
Curator of periodicals.....	24	Litton.....	51
Debate packages for high schools.....	56	Cockrell.....	52
Departmental libraries.....	59	Vest.....	51
Deposit of money for use of library.....	26, 33	Lathrop.....	52
Dewey Decimal System.....	47, 57	Bixby.....	52
Dickens, Charles. Private corre- spondence.....	52, 88	Lawson Library.....	52
Dockery, Alexander Monroe, gift of \$25.00 for the Library.....	24	Good roads.....	72
Drummond, Joseph Henry.....	30	Graduate students.....	50, 54, 70
portrait.....	31	Growth of the Library.....	19, 49, 70
Duplicate books.....	53	graph.....	92
Edwards, Eliza Russell.....	76	Guide cards.....	57
Elliott, Henry Walter.....	30	Halsall, John.....	21
Ellyson, J. Taylor, Gift.....	51	Hamilton, Alexander. Itinerarium.....	88
Elzevirs.....	50	Hamsard's Parliamentary debates.....	50
Engineering Library.....	64	Harper & Brothers, gifts.....	24
Reading room 1911.....	60	Harvard College Library.....	19, 25
Catalog.....	58	Hayes, Ida.....	30
English literature.....	52	Hayes, Scott.....	13, 70
Equipment.....	21	Curator of periodicals.....	24
Exchange of publications.....	53	to sell University views for benefit of the Library.....	24
Facilities and resources of Library for graduate students.....	50	portrait.....	27
Faculty resolution on Scott Hayes.....	30	elected librarian.....	28
Farm adviser libraries.....	56	card catalog.....	29
Farmers, travelling libraries.....	56	advocated fire proof library build- ing.....	29
farm adviser libraries.....	56-57	faculty resolution on his resignation.....	29
Federal troops in University build- ings.....	28	Head, Bolivar S., Librarian.....	25
loss of books.....	28	portrait.....	23
Fictitious signatures.....	54	salary.....	25
Field, Eugene.....	41	catalog of the library.....	25
Field, Eugene, my book.....	88	Hedrick, Stella Blanche.....	64
Field, Eugene, verse and prose.....	89	Henderson, John B.....	69
Fire, January 9, 1892.....	32	High School, debate packages.....	56
Flach, Jacques, private library; purchased 1920.....	50	Hill, A. Ross.....	13
France, Minister of public instruc- tion, gifts.....	51	secures appropriation for Univer- sity of Missouri Library Build- ing.....	72
French history.....	50	Hockaday, Irvin Oty.....	38
Freshman reading room.....	55	Horace.....	50
Fristoe, Edward T., Librarian.....	26	Hogan, Percy A.....	66
revised catalog.....	26	Horticultural Library.....	62
joined Confederate Army.....	26	Housing the library.....	
Froben, imprint.....	50	34, 35, 36, 68, 70, 72, 74, Hubbard, Paul.....	38
		Hudson, William W., President.....	22
		idea of a University Library.....	22
		quoted.....	22

recommends use of the literary society libraries for cultural reading.....	22	reference work for non-residents.....	57
Hurty, Jane A.....	64	Library. Established July 7, 1841.....	19
Incunabula.....	52	hours.....	24, 25, 32, 33
Indexes.....	57	loss of books on account of Federal soldiers refunded 1915.....	28
Inter-Library Loans.....	54	guard room for Federal soldiers.....	28
Inventaire general des richesses d'art.....	51	loss by fire 1892.....	32
Jefferson, Thomas, correspondence.....	89	reorganization 1899.....	46
Jesse, Richard Henry, President.....	13, 45	Library building, frontispiece; early suggestions of fire proof building.....	29
stressed the importance of the library.....	45	agitation of Colonel Switzler.....	70
reorganization.....	45	soldiers' memorial building.....	72
quoted.....	45	appropriation for new building.....	72
Jesse Hall.....	55, 68, 73	description.....	74
John H. Lathrop Memorial Library.....	52	second floor plans.....	77
Jones, John Carleton.....	13	entrance lobby.....	75
Journalism Library.....	64	reading room.....	78
catalog.....	58	delivery desk.....	78
reading room.....	65	catalog room.....	80
Kerner, Stella Laura.....	76	Library Journal.....	29
Lathrop, Gardiner, gift of the Lathrop Library.....	52	Library Methods for Teachers.....	79
Lathrop, John Hiram, collection in memory of.....	52	Library of Congress, catalog.....	53
Lathrop, John Hiram, portrait.....	23	Library, a place to preserve books.....	26
elected first president.....	19	Library School. See, summer library school.	
solicited gifts for the library.....	20	Library Science.....	76, 79
made first purchase of books.....	21	Library War service.....	74, 76, 89
idea of place of library in the University.....	20	Linn, Lewis Fields, U. S. Senator, authorized to solicit government documents.....	21
recommends faculty members for librarian.....	21	Litton, Abram, gift of private library.....	51
administration of library.....	24	book plate.....	58
advocated reading room.....	34	London Company of Virginia.....	51
Law Library.....	32, 64, 65	McAlester, Andrew W.....	38
reading room 1911.....	60	Marten's recueil des traites.....	50
reading room 1927.....	65	Manuscript.....	52
catalog.....	58	Massachusetts Secretary of State, gift of books.....	21
Law, public.....	50	Medical Library.....	66
Lawson, John Davidson.....	52	catalog of medical books.....	56, 58
Lawson Library of Crime and Criminology.....	52	reading room 1927.....	67
League of Nations.....	50	finding list of medical books for non-residents.....	56
Lefevre, George, private library purchased 1923.....	51	Minor, William G., gift of first books.....	20
Lefler, Grace.....	49, 76	Missouri Press Association.....	40, 72
Legislation, comparative.....	50	Missouri Secretary of State, gift of books.....	21
Lejay, Paul, private library purchased 1921.....	50	Missouri State Library Commission.....	76
Librarian, salary.....	25, 28, 30, 32	Missouriana.....	40
Librarian, President Lathrop recommends appointment of the first librarian.....	21, 25	Monser, John Watson.....	30
Librarians of the University.....	83	portrait.....	31
Library Committee.....	13, 49	elected librarian.....	30
Library, the center of the University; Pres' Brooks.....	11	gives bond.....	30
Library extension service, books debate packages, clippings.....	56, 57	catalog of the library 1888.....	32
map.....	91	places his private library at service of students.....	32
for doctors.....	56	political activities.....	32
for farmers.....	56	Mumford, Frederick B.....	62
farm adviser libraries.....	56-57	Mutilation of books.....	55
		National Association of state universities.....	45
		Nesbit (William) & Co., bankers.....	21
		Newspapers.....	24

Nise, Frances I.	76	Seminary fund	20, 22
Non-resident borrowers. See Library extension service.		Severance, Henry Ormal	47
Norwood, Joseph Granville. Portrait	27	portrait	48
librarian	28	war service	74, 76
report on loss of books due to Federal Army	28	summer library school	76, 79
Oppenheim, J. Private library	50	Shannon, James, President, urged appropriations for library	21
Osler, Sir William, gift to medical library	51	his idea of a University Library, quoted	21
quoted	51	Shelley, Percy Bysshe, notebooks	52, 88
Peeples, Annalee	76	Shoemaker, Floyd C.	40
Peeples, Ella	76	Smith, W. P.	56
Periodicals	20, 24, 50, 53	Soldiers Memorial Building	72
first subscriptions	20	Snoddy, James	30
records	46	Special committee, report on the library 1856	26
periodical room	55, 70	Spenceley, J. W.	58
Pflueger's archiv f. ges. physiologie	66	Spicer, Inez	76
Physician's travelling libraries	56	Stacks. See, Book stacks.	
Phillips, Grace D.	49, 68, 76, 79	Staff, the	68
Pickard, John	60	See, also, Assistants in the Library.	
Politics in the University	32	State Historical Society Library	40, 72
Political Science	50	Statistics on libraries, comparative	92-93
Power, Effie L.	76	Stephens, Edwin W.	38
Pratt, William S.	38	Stevenson, Burton E. Home book of verse	57
President's house, appropriation for rebuilding after fire, 1867	22	Stone, Walter King	32, 45, 49, 68
Prewitt, Robert Thomas	38	portrait	46
Professional terminology, course	76	Study hall	34
Purchase of books	50	"Subscription fund" of the University	19
made by the President	21, 24	Sumner, Clarence W.	68
Rare books	50, 51, 52, 88	Summer Library School	76
Read, Daniel, president	22	Switzler, Lewis M.	37
secures first state appropriation for University	22	Switzler, William F.	70
Reading Rooms		Taylor, Zachary. Letters	88
1852	34	Testerman, Lulu	66
1871	34, 35	Theft of books	55
1885	34, 37	Thomas, Robert Stuart	25
1892	68	Tiffany, Louis C., gift	50
1895	68	Travelling libraries. See, Library Extension Service.	
1907	71	Trimble, George Wallace	39
1911	71	Tuition fees for library purposes	20, 24
1914	78	Turner, Alma Leora	76
Red Star Collection	55	Twain, Mark	41
Reference books for Journalists	79	Union List of Serials	53
Reference collection	29, 54	Union Literary Society	28, 33, 39-40
Reference work	53, 57	loss of books by the soldiers	28
Research work	29, 51	placed books in University Library	28
Reserved books	54	withdrew	30
Reserved book reading room	55	U. S. Congress, refund for damage to University property, in Civil War	28
Roberts, Bessie M.	76	U. S. Dept. of Agriculture publications. Index	62
Root, Elihu	24	U. S. Government documents	51, 52
Root, Oren	24, 38	University of Missouri; founding bonus for location at Columbia	19
Rules for circulation of books	25, 29, 33, 34	opening for class work	19
St. Louis Public Library	76	local institution	20
Sampson, Francis A.	40	sources of income	20
Sampson, Julia	64	closed in 1862	22, 28
Sawyer, Harriet P.	76	reopened, 1862, income and deficit 1862	22
Scribners Sons. Gifts	24		
Schweitzer, Paul	13		
Selby, Arthur P.	38		
Seminar rooms	53		

University of Missouri Studies.....	53	Washington, George. Letters to Tobias Lear.....	88
Vest, George Graham, gift of govern- ment documents.....	51	Weeks, Raymond.....	59
Views of the University sold to get money for books and periodicals.....	24	Whitman, Walt, works.....	50
Virchow's Archiv f. path. anat'.....	66	Whittier, Florence.....	76, 79
Visalius, De Humani corporis.....	51	William Jewell College.....	25
Virgil.....	50	Williams, Walter.....	60
Wales, Elizabeth B.....	76	Women admitted to University.....	33
War fund.....	72	Women's Christian Temperance Union.....	40
Warner's Library of the World's best literature.....	57	Yale University Library.....	19
		Young, Frederick B.....	38







Missouri  
in the  
Library War Service



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ISSUED THREE TIMES MONTHLY; ENTERED AS SECOND-CLASS MATTER AT  
THE POSTOFFICE AT COLUMBIA, MISSOURI—1,000

JULY 16, 1931



# Missouri in the Library War Service

by

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Introduction by

Carl Hastings Milam  
Secretary, American Library Association  
(Acting General Director,  
Library War Service 1919-1920)



Columbia  
University of Missouri  
1931



## FOREWORD

When the United States called its young men for military service in 1917, there were practical idealists in places of authority who wanted to give those young men "the normalities of life." The Secretary of War, therefore, appointed a Commission on Training Camp Activities. This Commission and a comparable group representing the Navy and Marine Corps invited seven organizations to provide in the camps an environment which would approximate that of a well-developed community. To the American Library Association was assigned the task of furnishing books and library service. The Association was already prepared to respond, having previously appointed a War Service Committee.

During the weeks and months that followed, librarians and friends of libraries collected millions of books and periodicals and millions of dollars. They erected camp library buildings, stocked them and manned them. They put reading matter at the disposal of men on their way overseas and after they reached France. Wherever American forces went, even to Siberia, the A. L. A. War Service followed, with the generous help of the Government and the other voluntary organizations.

And the librarians were rewarded. Many of the men were fresh from school or college and from homes where books were considered a necessary part of their lives. They liked to read and knew what they wanted to read. Here were books, and they had time on their hands. Others, by thousands, came from communities without public libraries and from homes where books were few. Many of them discovered, through the camp library, the joy of reading.

Library War Service was a great experiment in which the people of every state had a part. It is appropriate that the record of Missouri's participation has been written by one who was identified with the work locally, nationally and abroad.

Carl H. Milam.



## CONTENTS

Foreword—

Carl H. Milam

- I Organization of the Library War Service
- II Missouri—State Activities. Missouri Library Commission
- III Public Libraries in the Library War Service
  - St. Louis Public Library
  - Kansas City Public Library
- IV Institutional Libraries
  - University of Missouri

### Appendix

Missouri's Contribution to Library War Fund 1917.  
Missouri's Contribution of Books 1918.  
Missouri Librarians in the Library War Service.

## ILLUSTRATIONS

- Library War Service bookplate
- Poster—"Knowledge Wins"
- Arthur E. Bostwick, Librarian, St. Louis Public Library  
(Member of the War Service Committee and first Chairman of Camp Libraries)
- Purd B Wright, Librarian, Kansas City Public Library  
(Divisional Director, Supervisor of Camp Funston)
- Library Float in Drive for Funds—Kansas City
- Camp Library—Camp Funston
- General Leonard Wood with Aides-de-Camp
- Henry O. Severance, Librarian, University of Missouri  
(Assistant to the General Director in charge of Camp Libraries)
- Faculty Military Company—University of Missouri
- American Library in Paris
- American Library in Coblenz





# Missouri in the Library War Service

## Chapter I

### Organization of the Library War Service

The Library War Service was national in its conception, organization and administration. The purpose of the organization was to furnish reading material for the men in the U. S. Army and in the U. S. Navy wherever they might be stationed—in training camps, on border patrol, on guard duty, on transports and battleships, in U. S. Arsenals, in powder plants, and in the army overseas. The service was organized on national lines similar to the Y. M. C. A. and other welfare organizations. Any account of a state's activity in the library war service must include an account of the national service of which the work of a state was an essential part, in the same way, that a history of Missouri in the World War presupposes an account of the World War work as a back ground or as a field of operation.

After Congress declared war in April 1917, the machinery of the Government was set in motion for the mobilization of the land and naval forces of the country. A large civilian army must be trained, at least, 2,000,000—young men, from homes of culture and refinement, from the laboring classes, from the farms, and factories. These men, if they were to become efficient soldiers and officers, must have some recreation in their leisure hours, must have the stimulus of spiritual and moral forces to be furnished by such organizations as the Y. M. C. A. and the Knights of Columbus, which could furnish entertainment, of various sorts, and opportunities for religious experience and moral uplift. The War Department provided a Commission on Training Camp Activities, with Raymond B. Fosdick, as chairman. This Commission invited the several welfare organizations and the American Library Association to assist in providing various camp activities for maintaining the morale of the boys under severe military training.

A letter from the chairman of this Commission to Herbert Putnam, Librarian of Congress, informed him that the members of the Commission on Training Camp Activities voted unanimously to invite the American Library Association to assume the responsibilities for providing adequate library facilities in the thirty-two cantonments and National Guard training camps which were expected to open on or about September, the first. Quoting from Mr. Fosdick's letter: "Briefly we have in mind the establishing of a suitably equipped central library which will be under your management and direction. The funds for the erection and equipment of these buildings will have to be provided from private sources, and I trust that your organization will be successful in obtaining ample financial support." For this service he pledged the full support and cooperation of his Commission. The Secretary of War, Newton D. Baker, placed his stamp of approval on the plans of the American Library Association to assume the responsibility of providing buildings, library books, and magazines for the soldiers. Mr. Fosdick's request and the approval of Mr. Baker gave the Library War Service an official standing which was a vital factor in the prosecution of its work.

The annual conference of the American Library Association was held in Louisville, July 1917, three months after the United States had officially declared war on the Central Powers. Already the resources of men and money in the United States were being rapidly mobilized for prosecuting the war. Immediately after the declaration of war, the President of the American Library Association, Walter L. Brown, appointed a Preliminary War Library Committee to make a survey of the possibilities of a nation-wide library service for the soldiers. The detailed report of this Com-

mittee outlining the problems of securing books, money, personnel, and the probable cooperation with the welfare organizations was adopted unanimously and enthusiastically. The preliminary committee was selected as the permanent committee, called the War Service Committee. The members of the Committee were: Herbert Putnam, Chairman, Arthur E. Bostwick, Richard R. Bowker, Gratia Countryman, Matthew S. Dudgeon, Alice S. Tyler and J. I. Wyer, Jr.

This War Service Committee served throughout the war and until the library war activities were transferred to the War and Navy Departments. This Committee formulated the first plans for library service, provided a subcommittee on Finance with Frank P. Hill, as Chairman, to formulate and direct the campaign for raising funds, and appointed Matthew S. Dudgeon, Camp Library Director. It soon became evident that a different organization would be necessary to cover the field and provide the desired service. The War Service Committee, therefore, secured the services of Herbert Putnam, Librarian of Congress, to direct and control the work with the title of General Director of the Library War Service, with headquarters in the Library of Congress. The subcommittee was discontinued November 17, and the General Director initiated his new organization which consisted of secretaries and assistants to the Director in charge of divisions of work such as: Assistant to the Director in charge of large Camp Libraries; another in charge of Publicity and the like. This organization became known as the Library War Service which continued to function until the close of the service in the fall of 1919.

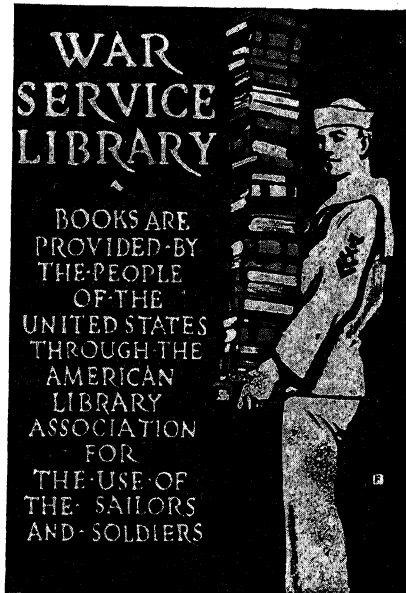
The first problem confronting the War Service Committee was to get books for the soldiers; the second to secure money to finance the work. The preliminary plan of the Committee provided agents in every state to direct the appeal for gifts of books for the soldiers. The situation on July first, called for providing library facilities in sixteen cantonments soon increased to thirty-two. Miss Elizabeth B. Wales, Secretary of the Missouri Library Commission, was appointed State Agent for the book and money campaigns in Missouri. Purd B. Wright, Librarian of the Kansas City Public Library, was appointed Director for the Kansas City area, and Arthur E. Bostwick, Librarian of the St. Louis Public Library, Director for the St. Louis area. A similar organization cared for the work in the other states.

The newspapers, the churches, the schools, the libraries—all were agencies for collecting books. Posters were placed on the street corners, in public buildings, in schools, and in various other places calling attention to the urgent need of books and magazines and to depositories where books might be left to be shipped to the camps. Books were not donated in sufficiently large quantities to supply the camp libraries, the welfare huts, and the numerous outposts and small stations. Then followed the intensive drive of March 18-25, 1918, for books. Only good clean copies of books were wanted. The classes of books suggested were: fiction, history, description, geography, literature, and other books which might interest the boys. Sixty-six thousand, seven hundred and sixty-four books were donated in the campaign.

It became evident after sorting the books and distributing them among the several large camps that the books were not adequate in kind nor of sufficient quantity. The War Service Committee, therefore, purchased about 350,000 new books for the large cantonments. In the meantime library buildings called Camp Libraries had been erected in the thirty-two cantonments which required a good stock of books for the thousands of boys in every camp. Then, too, books were needed for overseas. Those donated in the book campaign were for the most part unworthy and undesirable. Thousands of new ones had to be purchased for this purpose.

After the signatures of the nations at war were affixed by their representatives

to the Armistice November 11, 1918, the soldiers in training camps, on the battle front, and in the overseas camps, except the Army of Occupation in the Coblenz bridgehead, were left without any purpose for further training in military routine. The war was over, the soldiers, between 3,000,000 and 4,000,000, wanted to be mustered out of service. All the soldiers of the Expeditionary Forces and those at home still in the ranks were obsessed with the idea of returning to jobs, professions, etc., in private life. Their interests were no longer in war but in their trades and professions back home. It was impossible to muster out of service at once all the men in the training camp and those overseas. The problem of the Commission on Training Camp Activities was to keep the soldiers contented and give them activities to replace the constant arduous military drills and life in the trenches. The problem of keeping up the morale of the peace time soldiers was greater than it was in war time. The Library War Service as well as the welfare organizations redoubled their efforts to entertain the soldiers and to give them the educational facilities to prepare them for their jobs back home. The War Service purchased books, about 2,000,000 of them, on vocational and other educational subjects such as; wireless telegraphy, in which so many were interested, poultry raising, dairying, sheep raising, civil and mechanical engineering, plumbing, building of homes and barns, and hundreds of other vocations in which the men were interested. A soldier in the U. S. Army anywhere in the world could express his desire to read or study a book on practically any subject and the book would be furnished. The Army had the advantages of university organization and instruction in the temporary University of Beaune. The Library War Service purchased all vocational books on history, description, geography, books of fiction and literature available in Paris and in London, in addition to those sent over from the Dispatch Offices in the United States; more than 2,000,000



Library War Service Book Plate

books. Upwards of two and one-half million books were purchased and more than 5,000,000 books and tons of magazines were given and distributed to the soldiers wherever stationed in the camps, in the trenches, in the Coblenz area, in Paris, in outposts on the Mexican border, in naval stations, and in remote Archangel and Vladivostock, and on battleships and transports.

### *The Million Dollar Campaign for Funds*

Books were the first need; money was the second. The War Service Committee could not function without money and nothing could be done without financial backing, and until the amount available should be known plans could not be effectually discussed. Subcommittees on War Finance, Publicity, and Book Collecting were created immediately.

The first plan for securing money for immediate needs was the "Dollar-a-Month Club" formed among librarians. The generous response of the librarians did not produce sufficient funds for any length of time as the job became larger than anticipated. The War Service Committee then decided to raise a million dollars by private subscriptions with which to carry on the work. It was felt that this was the least amount for which the needed buildings could be erected, equipped and administered, and the soldiers supplied with reading matter at the front, in the field, in cantonments and training camps, and on board the troop ships. In order to give this appeal the proper emphasis and authority, the Secretary of War, Newton D. Baker, appointed ten nationally known men and women as a Library War Council. This Council served the American Library Association in an advisory capacity, not only in the million dollar campaign but also in the United War Work Campaign of November 1918, and continued to function so long as the Library War Service operated. The financial campaign was successful in raising the money asked for and two-thirds as much again. The exact amount subscribed was \$1,749,706.31, in round numbers one and three-fourths millions of dollars, but included in this fund was an item of \$320,000, a donation of the Carnegie corporation, for library buildings in the thirty-two cantonments already opened.

### *United War Work Campaign*

By the end of June, 1918, more than \$900,000 of this fund had been expended for camp library buildings, for personnel, for equipment, and for books. The maintenance of the librarians in camps was provided by the War Department. Many library boards granted leaves of absences, for library war work, to their librarians and assistants for limited periods, usually two months, with salaries continued, but as the war continued with no prospect of its termination in sight, the Library War Service was compelled to take over the salaries of its personnel. It, therefore, became necessary to secure additional funds for the American Library Association activities as well as for the activities of the Young Men's Christian Association, Salvation Army, and the other welfare organizations rendering service in the camps and on the battlefields. The American Library Association joined with the six other welfare organizations in the United War Work Campaign of November 1918, which brought to the American Library Association about four million dollars as its share of the total funds raised which exceeded two hundred and five million dollars—thirty-five millions more than was asked for.

This magnanimous response from the Citizens of the United States to the appeals of these organizations for funds to carry on indicated that our citizens appreciated and approved the welfare work in camp and field. The home folks were acquainted with this altruistic service through their visits to camps and through the

letters the boys wrote home describing the pleasure and inspiration they received from books and from the entertainments and religious influences and the personal services rendered by the Hostess houses, the Y. M. C. A., Knights of Columbus, and other welfare organizations. The Commission on Training Camp Activities and the service organizations could have had no endorsement more striking and convincing than the over subscription of the United War Work fund.

Some idea of the tremendous activities of the Library War Service may be gathered from the following statistics published in the War Library Bulletin of May 1918:

- 50 large camp libraries.
- 534 small military camps and posts, located in some welfare organization building.
- 150 library stations along the Mexican Border.
- 228 military hospitals.
- 264 naval stations.
- 54 marine corps stations.
- 150 vessels engaged in transporting troops.
- 1,000 naval and commercial vessels.

## Chapter 2

### I

#### Missouri State Activities

Such a remarkable record of effective service for the soldier boys in camps, trenches, and hospitals was made possible through the active interest and loyal cooperation of people of the United States together with the gratuitous work of unselfish librarians. No greater results than the popularization of the public and university libraries in the United States could have been hoped for. The horizon of the reading public has been extended beyond the *ne plus ultra* of former times. The citizens of no state gave more ardent support to the program than did the citizens of Missouri. As stated above, the Library War Service was organized on national lines. The nation was subdivided by states for administrative purposes and for raising the necessary funds to cover actual expenses of the service and for the soliciting, collecting, and forwarding the gift books. The Secretary of the Missouri Library Commission was the State Director. Purd B Wright, Librarian of the Kansas City Public Library, and Arthur E. Bostwick, Librarian of the St. Louis Public Library, were Directors and Dispatch Agents for the east and west portions of the State.

#### *Collection of Books*

Before the Library War Service could begin to function in this State or elsewhere books and magazines had to be secured. In August 1917, before the large training camps were officially opened, a campaign for books was inaugurated. Placards and posters bearing such inscriptions as: "Let your idle books help our soldiers;" "You can do your bit by immediately bringing your good books to the public library," were placed in libraries, schoolhouses, postoffices, courthouses, on advertising boards, etc., throughout the villages and cities of Missouri and elsewhere. Newspapers published these requests for books—fresh in appearance, readable books such as: history; fiction, description, travel—and new magazines and home papers. This first drive was for the immediate necessities in the camps when the boys were assembling. The next campaign, March 1918, was much more efficiently organized with results far more satisfactory than the first one. The Kansas City Public Library was the assembling point for books secured in the cities, villages, and school districts of Kansas, South Dakota, North Dakota, Nebraska, east of the North Platte River, and Missouri

north of the Missouri River. Villages, districts and cities of Missouri south of the Missouri River except Kansas City, Illinois south of Peoria, Iowa except Des Moines, Indiana except Indianapolis sent their books to the St. Louis Public Library. The list of towns in Missouri and the number of books forwarded from each is taken from the Library Messenger and may be found in the Appendix. This campaign netted 82,787 books of which Columbia donated 2,200, Kansas City 27,000, and St. Louis 35,000. The next and last campaign for books was launched in 1919. Recent books on the vocations were then in demand by the soldiers. There were comparatively few books in this class donated. The Library War Service purchased quantities of the desired books from the fund secured in the United War Fund campaign and sent them overseas, and to the camps, posts, and stations in this country.

### *Campaigns for Money*

In the campaigns for funds for the Library War Service and for the maintenance of the welfare organizations, Missouri did her share. Her citizens contributed \$21,634.01 in the million dollar campaign in the fall of 1917; of this amount Kansas City contributed \$3,540.50; St. Louis \$12,072.62; and the other cities and villages of the state more than \$6,000,000. A list of the cities and villages with amounts contributed in this campaign may be found in the Appendix. In this United War Work Campaign in which all the welfare organizations were interested, the citizens of the State raised \$5,445,406.22; Kansas City contributed \$1,800,000; and St. Louis \$2,306,000. According to agreement with the other welfare organizations, the Library War Service received approximately 2.05%, or \$111,630. The approximate amount of money contributed by Missouri for the Library War Service was \$133,264.00.

The story of Missouri's contribution to the Library War Service is best narrated under three heads: (1) The State Activities including the Missouri Library Commission; (2) Public Libraries—Smaller Libraries, St. Louis Public Library, and Kansas City Public Library; (3) Institutional Libraries—University of Missouri, and Teachers Colleges.

## II

### *Missouri Library Commission.*

The Secretary of the Library Commission acted as State Agent under the Library War Service Committee at Washington, D. C. Miss Elizabeth B. Wales, the Secretary, directed the campaigns in the State for the three drives for books and the two for money. Even before an official campaign for securing books was inaugurated libraries began in July, 1917, to collect books from their patrons for the camp libraries.

The Library War Work of the Commission is described in a general way by the Secretary in the Library Messenger, Vol. 1, No. 6, as follows: . . . "The earliest form which developed was the local endeavor to supply the home boys with books as each local company left for camp during the summer. Records are at hand showing that this was done in the form of company libraries, by Clinton, under the Red Cross society, by Savannah, under the Civic Improvement Club, and by Trenton, under the local branch of the Woman's National League for Service. As the plans of the American Library Association took shape, this effort was merged by most of the cities into a general effort to collect books for the soldiers. During August and September many public libraries became headquarters for such collections.

"In September, 1917, the matter of camp libraries was brought to a head in the campaign for the library war fund, which resulted in the collection of \$21,634.01,

through the efforts of the libraries of the State. The participation in the campaign was general (see list). The Secretary of the Commission acted as State Director under the central committee, at Washington; the Soldiers' Library War Fund Committee appointed by Governor Frederick D. Gardner for the State of Missouri, did good organization work. During the campaign, letters were sent from the Commission Office to each public library every week and to as many of the college libraries as were open; through the co-operation of the State Council of Defense, and its Committee on Camp Activities, all the county chairmen of the Council of Defense were called upon to help and responses were generous. The following cities were visited in the interest of the campaign: Mexico, Kansas City, Sedalia, Moberly, and St. Joseph.

"In August of the same year a request from the Library of the Department of Agriculture opened the way for co-operation in giving publicity to government information through the libraries. At first no attempt was made to confine the work to any one branch of war literature but rather efforts were made to acquire through the Treasury Department, the Department of Commerce, the Woman's League of Boston, the Guaranty Trust Company of New York and many other sources, all possible publications of up-to-date war information. Soon the co-operative work settled around the food situation and early in November, Miss Edith Guerrier was appointed Library Publicity Director, under the Food Administration, and visited Kansas City and St. Louis in order to explain the work to the librarians of Missouri. The Library Commission at once took up active co-operation with the Food Administration in an endeavor to make every library a distributing point. During the last two months of the year hundreds of pamphlets and leaflets on food were sent out from the Library Commission office. These were chiefly, however, to become the property of the libraries as a reference collection for the community.

"No request was made covering the distribution to individual patrons. In November some attempt was made to have the Hoover pledge cards signed at the libraries; the result was not satisfactory.

"Among other methods of co-operation the Library Commission received and mounted 75 photographs of food exhibition work for circulation as an exhibit among Missouri Libraries. On October 27, Dean Frederick B. Mumford, Federal Food Administrator for the State of Missouri, asked the Secretary of the Commission to serve as Chairman of the Library Publicity Committee for the State of Missouri. This appointment carried with it the privilege of the United States frank for all food conservation material mailed by the Commission. There was close co-operation between the departments from the beginning and by the first of the year, letters and pamphlets were being sent weekly to 100 libraries.

"The increased war pressure of 1918 led to an extension of the work of circulating food information. At the request of the Government, transmitted through the Library Commission, fifty-six libraries agreed to distribute among their patrons the food pamphlets provided sufficient quantity could be sent them. Co-operating with the Library and Exhibits Section of the Educational Division of the Federal Food Administration, the Library Commission ordered through the State Food Administrator six thousand copies of the various pamphlets published for general distribution. These were sent from the Commission office in quantity indicated by the libraries co-operating. The distribution of single copies for the permanent collection covering every library in the state was continued side by side with the larger service. The record of mailing under Government frank shows:

"That 134 libraries, 50 selected high schools, 25 traveling library stations received reference copies of pamphlets representing 59 different titles, making a total of 12,763. The same mailing list received copies of posters representing 21 different

# KNOWLEDGE WINS





subjects, amounting in all to about 5,000. Fifty-six libraries co-operated in quantity distribution, receiving in lots of 50 to 500 each, a total of 73,700 pamphlets. The grand total of the pamphlets thus handled for the government was 91,463.

"Besides these there is record of other pamphlets representing information issued by the Y. W. C. A., Red Cross, War Garden Commission, Bureau of Public Information, War and Navy Departments and charts from various sources giving military data (12,000). For these, of course, postage was used.

"Circular letters and reports—In all, twelve circular letters were mailed. For the four mid-winter months typed circulars were sent out every two weeks to draw attention to the developments of the Food Administration and to urge proper use of the printed suggestions. In February and in July, the Food Conservation was given prominence in the issues of the "Library Messenger." During the summer two circular letters were sent. Reports of the work done in individual libraries proved very hard to secure. In March reports received from eighty libraries showed the following:

Food conservation notices placed on bulletin board.....	70 libraries.
Special shelves for food information.....	67 libraries.
Food exhibits in library.....	14 libraries.
Lectures in library.....	6 libraries.

(52 reported this work done by other organizations.

Posters exhibited.....73 libraries."

### *Vocational Books*

When the soldiers returned home they wanted "better jobs." For this purpose of bettering themselves for better jobs, some of the soldiers entered the schools, colleges, and universities; others entered vocational schools maintained by the United States Government; others, who found it impossible to enter the schools, on account of lack of preparation, or expense to learn a trade, turned to the public libraries which assumed the responsibility of supplying books on trades and professions thereby following up the work of the camp and hospital libraries. The Library Commission attempted with considerable success to reach the communities with books, which had no other library facilities. Book lists were sent to the men in their homes requesting them to check the titles of books in which they would be interested and return the list. The books were sent as quickly as possible.

When the soldiers returned from overseas thousands of books were returned with them—mostly new books on vocational subjects. These were distributed to the Library Commissions of the various states. The quota which came to the Missouri Library Commission was 5,750 volumes. A large proportion of these books were made into travelling libraries and loaned to those posts of the American Legion which were in towns where there was no library service. Other collections were used as nuclei of public libraries to be established. The Veterans' Hospitals were not neglected.

## CHAPTER III

### I

#### Public Libraries in the Library War Service

The primary unit in the organization of the National Library War Service was the public library. The public libraries scattered all over the country, located as they are in hamlets, villages, and cities, were in a sense antennae of the national organization. The plan of the Library War Service (as stated in a preceding chapter, for the collection of books and funds for carrying on the service) made the states the logical

subdivisions in which the work was carried forward by regional and state directors, and state agents. These agents were the library commissions in most states which were in direct and official contact with all the libraries; both large and small in their respective states. In Missouri, the Secretary of the Missouri Library Commission kept in close touch especially with the local libraries and gave direction for soliciting books and the disposition of them, for soliciting funds for the service and indicated the channel through which the funds should be sent to reach the Treasurer of the Library War Service. The statistical tables in the Appendix will indicate the results of the work of the public libraries in the collecting of books and money for the service. Those tables do not tell the whole story. All of the libraries gave loyal support. It is impossible to record the work of all of them. The activities of the Hannibal and Webb City Public Libraries are typical of the small libraries in Missouri. Hannibal and Webb City Public Libraries carried on the newspaper, bill-board, and public school publicity, collected the books donated, then the staffs, with the help of women's clubs, pasted in the war service bookplates, and pockets, and made loan cards for the books and forwarded them to points designated by the Secretary of the Commission. They distributed food conservation literature for the State Food Director and opened their rooms for Red Cross work in making bandages and the like for the soldiers.

The Joplin Public Library made important contributions to the Library War Service. In addition to collecting and processing one thousand books, the Staff made more than 500 scrapbooks and 250 folders of "cheerful, diverting stories," taken for the most part from duplicate magazines. The books and folders were sent to the soldiers in hospitals. Miss Frances H. Swanwick, the present Librarian, states: "Books, magazines, scrapbooks, numbering 4,975, were sent; the books and magazines to Camp Clark, Nevada, Missouri, and to Camp Pike, Arkansas; and the scrapbooks to the hospital. The Library was also the distribution agent for the War Garden and Food Conservation, Liberty Loan and Red Cross literature. In the "Million-dollar campaign," Joplin contributed \$483.50 for the Library War Service. Four members of the Staff supported one French orphan for a year at a cost of \$36.50.

The report of the Library War Work of the St. Joseph Public Library is taken from the Annual Reports of that Library for 1918-1919:

"The Library's contribution toward the winning of the war has consisted chiefly in the distribution of material about the war and its allied phase, the conservation of food and other resources. Early in the conflict, the federal government discovered the great advantages of public libraries as disseminators of information and the plan was adopted of making the Library a place for the display and distribution of placards, posters and bulletins of the various departments of the government."

"The Assembly rooms of the branches were used extensively for war work activities. Permanent headquarters of the Red Cross were established in the Washington Park Library."

In the "Million-dollar campaign," St. Joseph secured \$473.75 for the Library War Service. Jesse Cunningham, the Librarian, assisted in collecting books for the camps, and in the drives and campaigns for raising money and in selling Liberty Bonds for the Library War Service and for the welfare organizations. He served as Librarian of Camp Grant, in Illinois, for five months.

The Sedalia Public Library was another center for assembling and distributing books and for the usual Red Cross and other library war work. According to the Librarian's Report 1918, the Library with the aid of the newspapers, by announcements in the churches and by means of posters, secured 305 books and 1,106 magazines in August 1917, and during the nation-wide book drive, in March 1918, for

the camps carried on in Sedalia under the direction of the Librarian with the assistance of women's clubs, the newspapers, the ministers, the picture shows, and many others, resulted in the donation of 2,200 books. These were processed by the Library Staff and shipped to the camps as directed. In the "Million-dollar Campaign" for library war work, Sedalia succeeded in raising \$733.55 as Pettis county's contribution toward the \$1,500,000 which was raised at that time. Miss Irene E. Blair, the Librarian, wrote in her report:

"In October the Pettis County Historical Society was organized in the Library. Judge Shain was elected President and your Librarian was elected Secretary. The object of the Society is to keep a record of every Pettis county boy in the army and navy of the United States during the present war. After a short biographical sketch of each boy has been written by some citizen co-operating in the work, it is to be typewritten and kept in a book in loose-leaf form, so that interesting data can be added as long as the war lasts. As 800 boys have already gone from the county, it can readily be seen that the work is an enormous one, but one well worth while, as future generations will look to the local libraries for information concerning the participants in this war. As the Library is co-operating in this work, notices have appeared in the leading Library periodicals and inquiries for particulars of the plan have been received from various parts of the country.

"During the food registration campaign, blanks were kept at the Library and a great many people registered here. We have made an especial effort to help in the food conservation, by displaying bulletins and by purchasing helpful cook books.

"In the campaign for the Red Cross, for the three Liberty Loans, War Thrift Stamps, for the Thrift Gardens and for the Y. M. C. A., numerous posters were conspicuously placed and reading material on the various subjects was made easily available. Other posters displayed, sent by the Government, which recognizes the assistance the Library can give, were concerning enlistment in the army and navy, the need of stenographers, etc.

"When the Woman's Committee of the Sedalia Council of Defense was formed your Librarian was appointed a member of the executive committee, as chairman of the Education Committee."

The Springfield Public Library emphasized the collecting and distribution of books for the soldiers. The Annual Report 1917-18, of Miss Harriet N. Horine, the Librarian, records the following facts:

"Books on every phase of the war question were shelved together for convenience to the public, and lists were printed from time to time.

"The publicity work done before the Drive began was effective. Posters were displayed in street cars and in prominent places throughout the city. A number of places were chosen as deposit stations, as many people were unable to bring their donations to the library. Also, suggestive slips telling what to give and what the Drive was for, were placed in each book before issuing. Several of the merchants assisted in co-operating, by putting one of these slips in each parcel. Material of all kinds was widely distributed.

"The first shipment to a Training Camp consisting of 311 books was sent to Georgia. Since then 1,202 books have been collected, as suitable for Camp Libraries.

"The Springfield Public Library was the main collecting point for the smaller towns. Ash Grove, Conway, Lebanon, Mansfield, and Turner, Missouri, were represented. The campaign through the schools and city was wonderfully successful.

"Through the assistance of the staffs of the State Normal and Public Library, the books have been made ready for shipment."

## II

## The St. Louis Public Library

It is apparent to every one who is familiar with the war service work of the St. Louis Public Library, that the service rendered by the Board and its individual members and the members of the Staff, was not surpassed, if equalled, by any other public library organization. The Board endorsed the campaign for funds in the the United War Service Campaign and placed the central library building and the branches at the disposal of the war work organizations. The United States Exemption Board with its legal advisors used half the assembly room and a large part of the basement of the Crunden Branch. The Barr and Corondolet Branches were used for similar purposes. The Red Cross activities were housed in the Branches; the British Red Cross Relief occupied rooms in the Cabanne Branch. The assembly room of the Souldard Branch was used for preparatory military drill for men registered for service but not yet called. There were over sixty different war relief organizations which held regular scheduled meetings in the club rooms and conference rooms in the branches and central building of the St. Louis Public Library. Dances and other forms of entertainment for the benefit of the United War Fund were held in the branch library buildings.

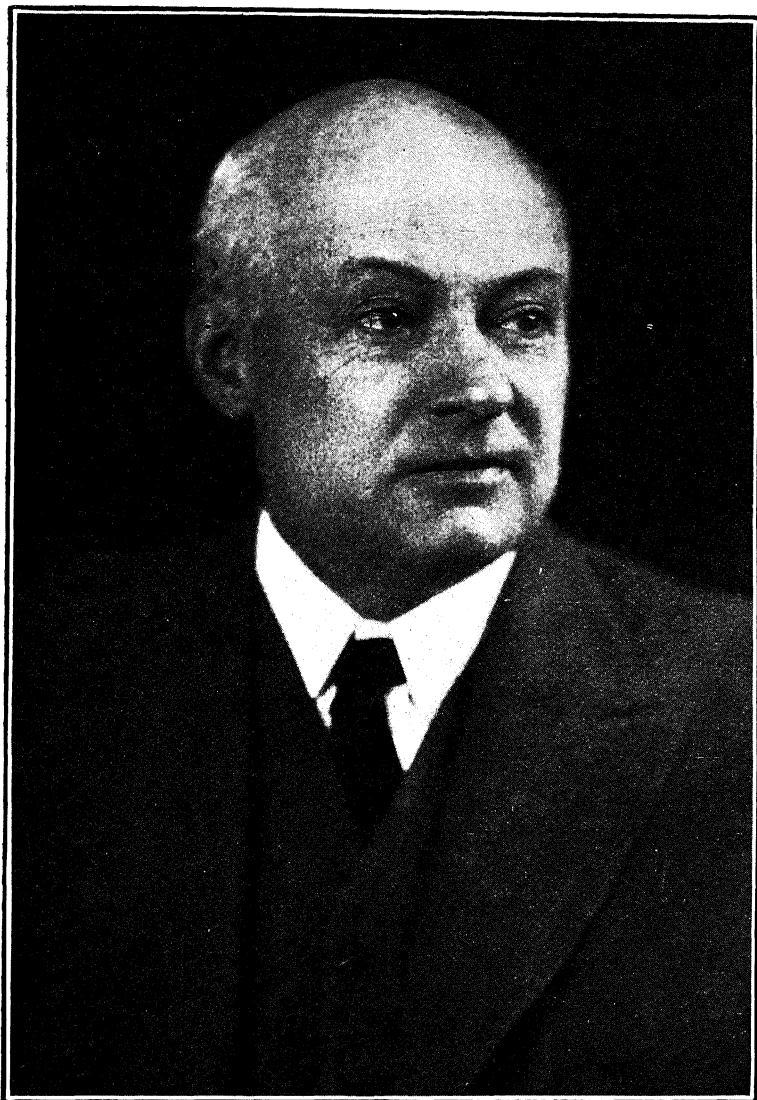
The individual members of the Board were actively engaged in various phases of the war activities. The President of the Board, George O. Carpenter, was Chairman of Mayor Kiel's City Campaign Committee of one hundred, for raising money for the welfare work in the camps; one member was in charge of the Campaign for the sale of Thrift Stamps; another was actively engaged in the work of the American Red Cross.

The Librarian, Dr. Arthur E. Bostwick, was a member of the first War Service Committee of the American Library Association, appointed at the Conference June, 1917, at Louisville. He was the first Chairman of Camp Libraries. Later he was appointed Dispatch Agent for the St. Louis area 1918, and Supervisor of Jefferson Barracks 1918-1919. He was Chairman of the Committee of sixteen which directed the Campaign for raising the United War Fund.

The Assistant Librarian in 1917, Paul Blackwelder, was loaned to the war service, with salary continued by the Library Board, to organize the Library at Camp Pike, near Little Rock, Arkansas, which he served as Librarian from November 15, 1917 to January 15, 1918. George R. Throop, Assistant Librarian, 1918, organized the Fourth Liberty Loan Bond Sale Campaign at the central library, through whom \$50,250 of bonds were sold to 216 subscribers. Thrift Stamps were sold at all the Libraries which up to May 1, 1919, amounted to \$7,951.47.

"The Library Staff," wrote Dr. Bostwick, in his Annual Report 1918-19, "has responded in a spirit and with a resourcefulness that are worthy of all praise; and the Librarian bears testimony in closing, to the fact that its members have deserved well of their institution, their city and their country."

The St. Louis Public Library, as stated in a preceding paragraph, became the assembling station for books collected in the St. Louis area, as well as the supply station from which books were dispatched to the several camp libraries. A special room in the basement of the central building was the receiving room where the books were sorted. Those that were discarded were sold for old paper and receipts, which amounted to \$513.90, were turned over to the Library War Fund. Those that were accepted were plated with the War Library bookplate, and pocketed. Loan cards were written for each book. From September 1917 to June 1919, this office received 114,000 books; the major portion of which were usable and were processed by the Library Staff and dispatched to eight different camps and to points of embar-



DR. ARTHUR E. BOSTWICK, *Librarian*, St. Louis Public Library. Member of the War Service Committee and First Chairman of Camp Libraries.

kation for overseas. In the year 1917-18, the Staff handled forty tons of magazines and dispatched them to the several camps.

The Staff rendered a signal service, also, in co-operation with other agencies, in raising the funds for the American Library Association War Service and for the United War Service. Members of the Staff gave active and effective assistance in raising \$2,306,000 in St. Louis for the United Service Campaign, for all the service organizations in the camps and overseas such as the American Library Association, Y. M. C. A., Y. M. H. A., Salvation Army, and the like. The Staff of the Catalog Department contributed \$906.30. The proceeds of the dances and entertainments in the branches fostered by members of the Staff helped to swell the fund for camp activities, so did the funds received from the benefit moving picture shows, arranged by members of the Staff, which netted the fund \$715.30.

At a mass meeting in the Carondelet Branch, addressed by Dr. Bostwick, the Chaplain of Jefferson Barracks, and the mother of a boy in the front ranks overseas, the subscriptions amounted to \$1,146.33. The Staff contributed, also, to the Red Cross and other organizations of which there is no record. The Staff was the agency that collected \$1,694.31 from the school children. In this brief description it is impossible to name all the activities of the Staff members who served on committees and co-operated in many ways for the winning of the war. Even students of the Library School did their share. At campaign headquarters in the drive for funds in 1918, they handled more than 30,000 subscription slips donating, at least, 250 hours of time.

Another form of war work in which the Library co-operated was in exhibiting posters and in the distribution of literature on the subject of food conservation. There were stations in all the library buildings for signing the Hoover pledge. In some branches systematic instruction in canning and allied subjects was provided for. The Library began early in the war to collect books, pamphlets, prints, photographs, posters, etc. on the war and to place them on exhibit to stimulate recruiting. The Library contained in 1919, 3,754 bound volumes, 1500 posters, and 1100 prints, photographs, and pamphlets on the war.

It is evident that the Public Library was headquarters for most of the war work. On May 16, 1917, Barnes Hospital unit No. 21, which included 234 members, of which 25 were surgeons from Barnes Hospital and 65 were nurses, assembled at the East Entrance of the Public Library and marched to the Farewell Services at the Christ Church Cathedral, where the flag given by General Joseph J. C. Joffre was presented to it. On December 29, 1917, 700 enlisted men entered the Public Library to get warm. The Staff made them welcome and served them refreshments, consisting of hot tea and biscuits, for which later it received the warm commendation of Lieutenant Albin L. Clark of the United States Army.

This account of the contribution of the Public Library to the war work must necessarily include the Library's active part in the establishment and operation of the American Library Association Camp Library at Jefferson Barracks. The Library supplied the post with books and magazines in 1917 through the Agency of the Y. M. C. A. In June 1918, Justin Rice, a former St. Louis Public Library Assistant, was appointed Camp Librarian by the American Library Association and assigned by the courtesy of the Y. M. C. A. a space, about 12 x 20 feet, in its enlarged hut at the Barracks, where the Camp Library was operated under his charge until his resignation September 20, 1918. He was succeeded by another Assistant in the St. Louis Public Library, Raymond R. Tucker, who served until November 10, when he resigned to enter the Student Army Training Corps. The other Librarians were: Mrs. E. L. Collins, George L. Burtis, and A. Earle Butler. In February 1919,

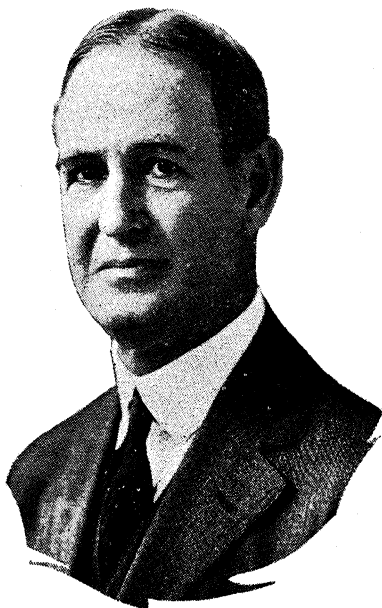
the American Library Association purchased the Knights of Columbus building for a library; the Knights having removed to a more commodious building. The General Hospital No. 40, on Arsenal Street in St. Louis, enjoyed the advice and assistance of the Public Library.

Fifteen young men on the Library staff entered the army. Members of the Staff who went into Library War Service in addition to those above were: Ferdinand Henke, Librarian, Camp Funston 1918-19; Eric G. Jansson, Assistant Librarian, Camp Pike and Camp Dodge 1917-1918; Clifford Keller, Assistant Librarian, Camp Funston; Margery Quigley, Librarian of the Base Hospital, Camp Funston, May 31, 1918-1919.

### III

#### *Kansas City Public Library*

After three thousand five hundred mechanics began construction of the buildings of Camp Funston and after Major-General Henry T. Allen with his division of the Regular Army was stationed at Fort Riley Kansas, certain women of Kansas requested the Librarian of the Kansas City Public Library to send some books for



PURD B WRIGHT, *Librarian*, Kansas City Public Library. Divisional Director, Supervisor and Librarian of Camp Funston.

use in the Camp and in the Fort. Purd B Wright, the Librarian, immediately entrained for Fort Riley and Camp Funston to investigate the book needs of the army and workmen. He returned to Kansas City and instituted a campaign for books for the soldiers and workmen. Due to the generosity of the people of Kansas City, he was able to ship 5,000 readable books to the Fort early in July. These books were made available in the Y. M. C. A. rooms at the Fort and supplemented or rather supplanted the old Fort Library; in the Y. M. C. A. hut No. 3 at the Cavalry Camp which was located between the Fort and the new camp, and supplemented the Regi-

mental Library which had not been replenished with new books; and in the barracks at the camp for use of the workmen.

Camp Funston was not opened to receive the boys for training until early in September. In the meantime the books were cared for and circulated by the Y. M. C. A. workers. On September 14, Henry O. Severance, Librarian of the University of Missouri, was authorized by the President of the University of Missouri, Dr. A. Ross Hill, to initiate Camp Library Service at Funston, thereby becoming the first Camp Librarian. A librarian had no official status in camp at this time as the Library War Service had not begun to function in the training camps. Through the courtesy of C. G. Lord, the Secretary of the Y. M. C. A., and General Wood's Chief of Staff, Mr. Severance was given the title, Secretary of the Y. M. C. A. and Representative of the American Library Association in charge of the camp libraries, with an office in the Y. M. C. A. administrative building which was completed and occupied about September 20. In early September the Y. M. C. A. headquarters was in Fort Riley. The Secretaries and the Librarian rode to Camp Funston in the morning and back at night in the Ford. The Librarian was given board and lodging by the Y. M. C. A. Four Y. M. C. A. huts were then opened; No. 1, at the Fort, containing 150 volumes; No. 2, at Medical Camps, 200 volumes; No. 3, at Cavalry Camp, 200 volumes; and No. 4, at Camp Funston, with 100 volumes. Building operations were being pushed so rapidly that huts Nos. 7, 8, 9, and 10 were completed and occupied before the close of September and 500 books were placed in each. Five other huts were completed in the following week. The Educational Secretaries of the Y. M. C. A. prepared the books for circulation and placed them on the shelves in their respective huts as rapidly as the books were furnished and as rapidly as new huts were constructed.

The necessary expenses for supplies and incidentals were met by Mr. Wright, personally, until the War Service Committee could meet such expenses. Willis H. Kerr, Librarian of the Teachers College, Emporia, Kansas, succeeded Mr. Severance as Camp Librarian, receiving his appointment from the American Library Association War Service Committee. Mr. Wright was very impatient with the delay of the War Service Committee in getting service established for the boys from the farm and other homes who had volunteered for service and who were pouring into camp which was not yet ready for them. He visualized the condition of boys entering such camps—Funston in particular—with nothing to do with their leisure time; homesick boys without their home paper, without a story book, or a story magazine with which to while away the leaden moments.

On August 4, he wrote William King, Librarian of the Kansas State Library, expressing his solicitude for the boys and his disappointment at the delay of the War Service Committee in getting into action in Camp Funston. He wrote: "Three buildings are now running full blast doing wonderful work and there is a great demand for books—We cannot wait out West here for the East to do everything, indeed! I would not be a bit surprised if they failed to be ready weeks after the men are on the ground. I do not know what they are going to try to do or when. I only know that the boys of Missouri, Kansas, and Colorado, are to be the guests of the Nation in your State and I want to be one of the many to make them feel as much at home as possible. There are ten or twelve thousand men there now, three Y. M. C. A. Branches are in operation and eleven are under contract. They are planning big things to work with fifty thousand men."

In the meantime the War Service Committee was inaugurating plans for the raising of money and books. In the August Conference, a subcommittee on finance was appointed. A week later the Library War Council was established and plans were soon effected for the "Million-dollar Campaign." Purd B. Wright was selected as



Division Director for Missouri, Kansas, Oklahoma, Arkansas, and Texas and I' Burr Jones, was selected as Field Director.

In the campaign for books, the Kansas City Public Library was the assembling point for a vast territory. Books secured in Kansas, North Dakota, South Dakota, Nebraska east of the North Platte River, and from Missouri north of the Missouri River, were shipped to the Louis George Branch of the Kansas City Public Library. The lower floor of this Branch was used exclusively for the assembling, sorting, and the processing of the books which was done by the Library Staff on personal time which necessitated from five to ten members of the Staff for three or four nights



Library float used in drive for funds in Kansas City

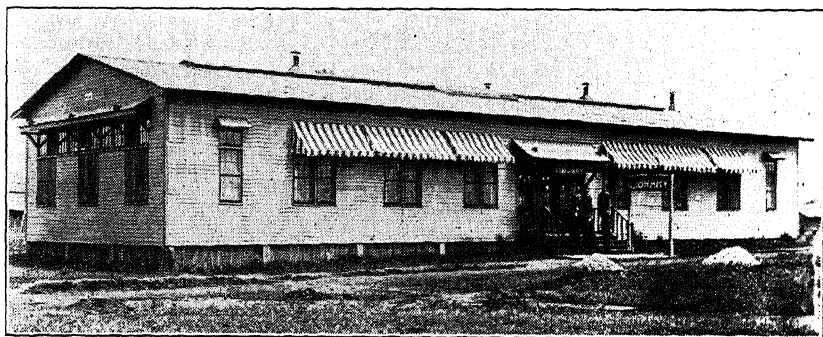
a week. This divisional point handled 60,000 books, 1917-18; of which 3,029 were shipped to ports of embarkation for overseas use: 45,348 were shipped to training camps. The total dispatched by Kansas by April 1, 1918, was 27,448 books. This represented 80% of the books donated. The housewives were so generous with their gifts that they pulled off their shelves practically all their books and sent them forward to the training camps, many of them hoping that the books would reach their sons. A list of the towns of Missouri and the number of books donated for the Library War Service is given in the Appendix.

The names of the camps and the number of books shipped to each by April 1, 1918 were:

Camps	Books
Funston	12,847
Doniphan in Oklahoma	3,027
Travis in San Antonio, Texas	3,148
Bowie, Fort Worth, Texas	1,352
Logan, Texas	5,069
McArthur, Texas	619
Pike, Little Rock, Arkansas	300
Beauregard, Hattiesburg, Louisiana	298
Fort Sam Houston, San Antonio, Texas	418

In raising the funds for the library war work, Mr. Wright, his Library Board, and his staff, were very active and efficient. Mr. Wright was Chairman of the "Million-dollar Campaign," and secured \$4,136.98 for the war work. In the United War Work Campaign, Jesse Clyde Nichols of the Library Committee of the Board of Education was Vice-Chairman of the Committee for raising the money. J. C. Nichols, Purd B. Wright, and Cliff C. Jones, with an executive board of fourteen men and women, planned the campaign in which they used 3,000 soldiers to solicit the fund; \$1,800,000 were raised.

The personal service rendered by the Staff of the Kansas City Public Library was no less significant than the raising of funds, soliciting, processing and dispatching books. The Staff was active in the support of every call for war work. Quoting from the Kansas City Public Library Annual Report for 1918, "The first liberty loan was sold through the library, over \$30,000 being reported. The other loans were well advertised in the building by special bulletins, posters, etc., but the staff did not act as solicitors, the geographical plan being well organized. Thrift stamps, baby bonds, Red Cross memberships, and French orphan cards have all been sold over library counters.



Camp Library Camp Funston

"The government has supplied the library and branches unlimited literature on food. Pamphlets on every sort of gardening were widely distributed, then on canning and drying and preserving. Having taught the people how to produce food, a conservation campaign was started. The printed posters and pamphlets were augmented by attractive library bulletins and lists of most helpful books.

"During the big battles in December, 1917, when a hurry call was sent for surgical dressings, members of the library staff volunteered to work each night during the ten-day rush. After going to headquarters one night to cut cotton by hand shears, the cotton was brought to the power cutter in the library bindery, and working six evenings in this way, 30,000 pads were much better cut than could possibly have been done by hand, while the same force would have done only a few hundred. This work was continued as long as the Kansas City Chapter of the Red Cross furnished these pads, all the cotton cutting being done in the library bindery. It was brought to the library in large packing cases, cut into pad size, repacked, and sent to the Red Cross headquarters, to be wrapped in gauze.

"In May, 1918, the government established motor mechanic schools in Kansas City, finally housing and training 4,500 men in each two-month school periods. Libraries were placed in the three schools, under the care of the Y. M. C. A. and the Knights of Columbus secretaries. Both fiction and technical books were furnished.

"Soldiers and sailors located in Kansas City have been given the use of the library; commissioned officers upon application, and others with the signature of an officer."

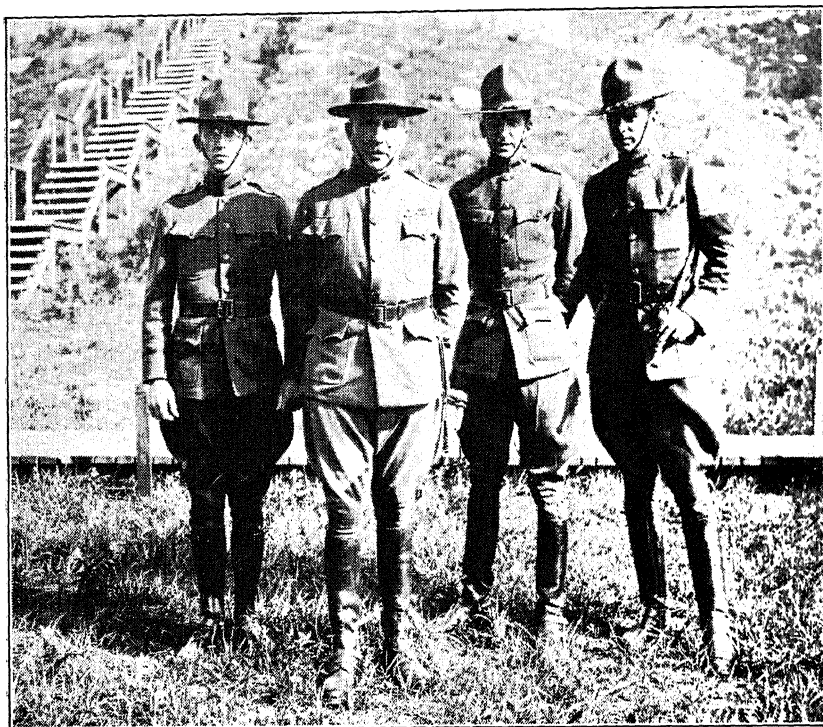
Undoubtedly the most important contribution of Kansas City to the Library War Service was made at Camp Funston. Mr. Wright initiated the work there in July and the Library War Committee, in August 1917, asked him to supervise the library service at Camp Funston. In fact, Mr. Wright told the Library War Committee that Kansas City Public Library would be responsible for Camp Funston. He, also, supervised Camp Doniphan for a time, and early in the war preparation, gave material assistance to the camps in Texas and Louisiana. He not only was solicitous for Camp Funston in securing supplies and personnel but also active in its administration. He was resident Camp Librarian for a time. After Willis H. Kerr's service at the Camp, H. V. Clayton, of the Kansas State Library, became Librarian, and from April 20 to September 2, 1918, Mr. Wright was the Camp Librarian, having associated with him Ward Edwards, Librarian of William Jewell College, and Purd B. Wright, Junior. Then came Ferdinand Hencke as Librarian, formerly Assistant in the St. Louis Public Library, and Margery Quigley, Librarian of the Barr Branch of the St. Louis Public Library, became Librarian of the Base Hospital in this Camp.

Major General Leonard Wood presented Mr. Wright with a photograph of himself and aides-de-camp, with the statement, "In appreciation of the work of the American Library Association with the men of Camp Funston," and with the legend, "To Mr. Wright, with kind regards of Leonard Wood, Maj. Gen., U. S. A." This cordial relationship between the Major General and the Librarian continued throughout the period of training soldiers.

From the inauspicious beginning of library service at Fort Riley and Camp Funston the work developed into large proportions. There was a central library building, the headquarters for administrative and reference work, and the distribution of books and magazines to the 200 substations, where an army of more than 50,000 men were supplied with books and magazines. Forty Burleson mail sacks a day brought quantities of recent journals which were distributed to the reading tables in the Y. M. C. A., Y. M. H. A., Knights of Columbus, Salvation Army huts, to army headquarters, and to the officers' and soldiers' barracks.

General Leonard Wood was not the only official who was greatly disappointed because he was not allowed to render service overseas with the 89th Division which he had so ably trained. Purd B. Wright, who had planned the recreation and education for the Division and had given without stint his strength and best ability to

render the greatest service to the men, was obsessed with the idea of continuing this service for this Division on the transports and in their camps overseas but owing to the age limit set by the American Library Association he was not allowed to go, but he never lost interest in Camp Funston. He continued his supervision until the Camp was abandoned. Even then he rendered a signal service in outlining a plan



MAJOR-GENERAL, LEONARD WOOD and aides-de-camp

for salvaging the Camp which was adopted by the Headquarters Staff. In recognition of his service in preparing plans and specifications, he was offered the military rank of Major with pay, if he would direct the work of salvaging the Camp but he declined.

In February 1919, when the Library War Council began to stress the need and use of vocational books in the camps and hospital, Purd B Wright and Henry O. Severance, were the two Missouri Librarians chosen to visit the camp libraries and military stations in the southwest and stimulate the use of vocational books. If the soldiers did not have books on the trades and occupations for which they desired to prepare themselves the books were to be purchased. Mr. Wright visited Camps Sherman, Grant, Dodge, Doniphan, Funston, Jefferson Barracks, and conferred with the librarians and planned a campaign for extending a knowledge of the resources of the libraries to every man in camp, hospital, and military station in this territory.

Excerpts from three letters will indicate the high grade of service given the boys at Camp Funston. Matthew S. Dudgeon of Wisconsin, Director of Camp Libraries, wrote on September 21, 1917, commending Mr. Wright in these words, "All

of us are enthusiastic over the splendid men you have secured and the splendid work done at Camp Funston. We are all more than grateful to you."

Millard F. Eldred, a soldier, in a letter July 2, 1919, to the Director of the Library War Service:

"Mr. Wright left with me the impression that it was a personal matter with him to see that his collection of books did not consist of such volumes as are in every family—the sort of a novel, for instance, which has been a gift, perhaps, and the family has learned that it is not a good story and has never read it. There are some of these in every household, no doubt, which the owner would gladly give away, and these were just the sort of volumes which Mr. Wright was not soliciting. He wanted the very best fiction, and standard works of all kinds. His attitude, I should judge, was no different from that of other librarians, for my later experience proved that the pains they had been taking were justified, and I was agreeably surprised at the results of their efforts."

The other is from Ferdinand Hencke, Camp Librarian of Funston, July 18, 1919, to Purd B Wright.

"The Staff is well taken care of. Thanks for your dandy co-operation. Many good books have been allowed to go to waste in other camps. But then, Funston has been different since the day you took hold."

In a letter of April 10, 1930, to the writer, Mr. Wright commends his Staff for their loyalty and co-operation: "We handled the first big drive for the tenth district; books and money. In the second big drive, we looked after everything in the southwest. It was the most important work of my life, without the 100% plus help of a most loyal and energetic Staff it would have been impossible."

## Chapter IV

### Institutional Libraries

Libraries of state educational institutions shared the duties and responsibilities of helping win the war with the public libraries of the state. In addition to the usual welfare activities and the sale of liberty bonds, thrift stamps, and the like and the collection of books and money, they opened their libraries for the use of the Student Army Training Corps.

Of the State Teachers College Libraries none were more active than the Southeast State Teachers College Library at Cape Girardeau, which was the assembling point for books from southeast Missouri. The towns in this district shipped their books to the Library of the Teachers College where the Staff pasted in the war service bookplates, and pockets for loan cards, and prepared the loan cards for the books. More than 1,800 books were received, processed, and shipped; 513 were sent to Camp Pike; and 1,350 were shipped to Hoboken and Newport News for overseas service.

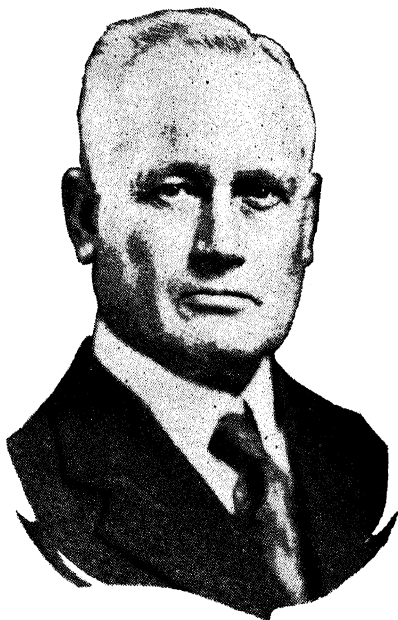
In the "Million-dollar Campaign" in November 1917, Cape Girardeau contributed \$357.00 which exceeded the 5% quota requested of this district. This Library purchased the books recommended by the War Department for use of the Student Army Training Corps and placed the reading room at the service of the Corps every evening for study supervised by the Commanding Officer. The Library forwarded the food administration program by exhibiting posters, "Food to eat", and "How to conserve", and by the distribution of pamphlets and leaflets on food conservation, and in abetting the Red Cross work by the display of posters, etc., and by furnishing facilities for making bandages and the like.

The activities of the St. Louis Public Library were largely local; the activities of the State Library Commission were state wide; those of the Kansas City Public

Library were regional including Fort Riley and Camp Funston in Kansas, Fort Sill, and Camp Doniphan in Oklahoma; the activities of the University of Missouri Library were largely national and international.

*University of Missouri*

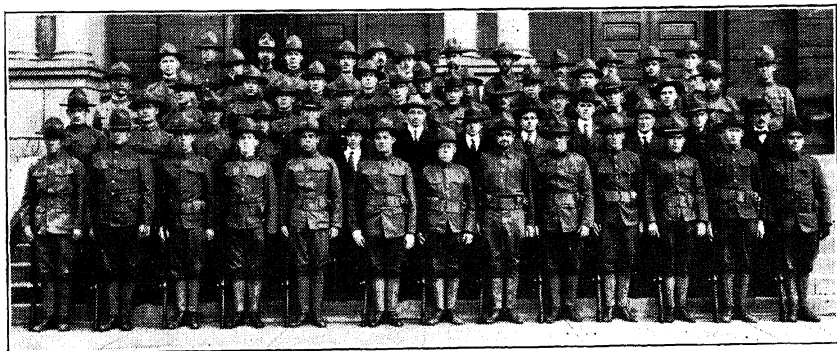
Dr. A. Ross Hill, President of the University, desired to place the University with all its resources at the service of the United States Government, if the need should arise, and if the University could still function as a university. The University pursuing this policy encouraged faculty men to enter the war service, enlarged the engineering shops west of the campus to accommodate a larger number of students who were preparing themselves to enter military service. A Student Army Training Corps (S. A. T. C.) was organized and placed under U. S. Army Officers for training. The S. A. T. C. had the exclusive use of the reading room of the University Library certain periods of the day, usually at night for study under supervision of the military authorities.



HENRY O. SEVERANCE, *Librarian*, University of Missouri. Assistant in Charge of Camp Libraries, 1919. Librarian, American Library in Paris and Acting European Representative of the American Librarian Association, 1920.

The Reserve Officers Training Corps (R. O. T. C.) were given intensive drill for the purpose of preparing them, as soon as possible, to enter the rank of officers in Camp Funston and in other training camps. Their studies in the University were curtailed for this military service. Young men on the faculty, who had been trained for military service in the R. O. T. C. and elsewhere resigned to enter the training camps to assist in making soldiers out of the raw recruits from the fields and the factories.

Members of the faculty—some young, some middle-aged, fifty-eight in all—caught the spirit of service and formed a military organization, equipped themselves with uniforms and drilled three times a week from October to May 1917 and 1918, under the direction of Major Wallace M. Craigie, U. S. Army Commandant of Cadets. The company was drilled in the use of guns furnished by the War Department for the R. O. T. C. They rose from the trenches and fired on the enemy and then went over the top with bayonets fixed for action. The company surprised the (supposed) enemy entrenched at Stewart Bridge to guard it and charged with signal success. They made forced marches into the country south of Columbia and won a battle on the open plains without any casualties. While only a few of the members of the company entered military service, several assisted in the welfare work, one of whom was the Librarian. They all contributed to the Red Cross, the welfare organizations, purchase of Liberty Bonds, and the like. The Company as such raised money for the Red Cross and purchased advertising space in the three Columbia daily papers for advertising the Third Liberty Loan.



Faculty Military Company, University of Missouri

When the University opened for student enrollment in September 1917, several instructors were in Camp Funston; Dr. Guy L. Noyes, Dean of the Medical School, was in the Medical Corps at Fort Riley, drilling every day; and Henry O. Severance, Librarian of the University, was at Fort Riley and Camp Funston, opening reading rooms at the Fort and at the camps for the officers and soldiers in training. The books were forwarded by the Kansas City Public Library and were placed in the Y. M. C. A. huts at the Cavalry Camp east of Fort Riley and in Camp Funston of which there were nine opened in early September. Leave of absence with salary was granted for a limited time to the members of the University faculty who went into civilian war work, provided their work in the University could be carried without a burden to the University, and provided they were not paid salaries by the welfare and other organizations. Walter Miller, Dean of the Graduate School, went overseas and accepted service with the Y. M. C. A. in France and Italy, Manly O. Hudson and J. W. Hudson assisted the Red Cross, Charles W. Greene served in the Medical Corps at Hazelhurst Flying Field, and Earl R. Hedrick was Educational Director in the University of Beaune in France, 1919. These are only a few who served their country in the World War. Dr. A. Ross Hill, himself, after resigning the presidency of the University, and Leslie Cowan, Secretary of the University, rendered excellent service in the Red Cross ranks in Greece and Turkey.

The University Library was a designated depository for books sent as gifts for the soldiers from towns and districts in central Missouri. The Columbia Library Club placed the war library bookplate and pockets in the books, wrote loan cards for them so that the books were prepared to go directly to the shelves of the Y. M. C. A. huts and other welfare organizations buildings and later to the shelves of the camp libraries as soon as they reached camp. About three thousand books were received, processed and dispatched to the training camps during the fall of 1917 and the spring of 1918.

In the meantime several librarians who were on the staff, or had been recently, resigned and entered the war service; Annalee and Ella Peeples, Bessie M. Roberts, and Inez Spicer, secured clerical positions in Washington, in the Aviation, Ordnance, and Quartermasters departments, etc. Later Annalee Peeples became Assistant in the Library at Camp Gordon at Atlanta, Georgia. Valeria Easton became Librarian at the Base Hospital at Camp Shelby. The Librarian spent his annual month's vacation in August 1918, as Librarian of Camp Custer, Battle Creek, Michigan. He was granted a leave of absence by the University of Missouri four different times for as many special tasks in the Library War Service. The first leave of two weeks was granted so that he might inaugurate the camp library work at Fort Riley and Camp Funston, September 1917. The second leave, for six weeks beginning January 27, 1919, enabled him to visit the training camps in the southwest for the purpose of stimulating the use of vocational books.

#### *General Field Service*

During the winter of 1919, when the days were short and the nights were long, the boys remaining in camps, army posts, naval stations, and hospitals, were counting the days to the probable date of being mustered out. They were no longer interested in military drills even for morale purposes. The men in their interests were no longer soldiers; they were civilians. They wanted to go back to their jobs. The work of the American Library Association for soldiers, sailors, and marines immediately increased after the signing of the Armistice. With part of the money allotted to the Library War Service as a result of the campaign in November of the preceding year, the Library War Service purchased thousands of books—vocational books—with a view of placing them into the hands of every soldier, wherever he was rendering service, or in whatever hospital he might be convalescing, a book on the trade or project in which he might be interested. The Library War Service posters designed by artists such as; "Knowledge Wins, Public Library books are Free"—representing a soldier climbing to the top over a stairway of vocational books calling attention to these books were placed on bulletin boards, in camp libraries, in hospitals, in barracks, in hostess houses, and in welfare buildings. The Service also issued attractive booklets with such titles as: "Books at Work", and "Your Job Back Home" and distributed them freely to soldiers wherever they were stationed.

In order to stimulate the use of this class of books, and to make known to all the boys in camp that the libraries had books on any of the trades or professions and that they could be had for the asking, the Library War Service secured the volunteer service of eight well-known librarians to visit all the camps, posts, and hospitals, to confer with the librarians on ways and means of making the library service more efficient so that every soldier might have a book on dairying, automobile repairing, or on any other business, trade, or occupation in which he might secure employment when he returned home after being mustered out of the service. Two librarians out of the eight were: Purd B. Wright, Librarian of the Kansas City Public Library and Henry O. Severance, Librarian, University of Missouri—two Missourians. Mr.



Wright inspected and reported on the following camps; Sherman, Jefferson Barracks, Funston, Dodge, and Grant. Mr. Severance, who was granted a leave of absence from the University for this special service of Field Representative of the Library War Service, beginning February 1, 1919, inspected and reported to the Library War Service headquarters in the Library of Congress, on the following camps: Taylor and Knox, Kentucky; Beauregard, Louisiana; Pike, Arkansas; Doniphan, Oklahoma; Bowie, McArthur, Travis, and Kelly Field, Texas; Furlong, New Mexico; and Kearney in Southern California, besides stations on the Mexican Border at Brownsville and Laredo, Texas, and the Hospital at Prescott, Arizona. After the completion of this project, Mr. Severance was called to a larger field.

#### *Director of Camp Libraries*

The third leave was granted by the University for six months, beginning April 1, 1919, to enable Mr. Severance to become Assistant to the Director of the Library War Service, which had headquarters in the Library of Congress. His duties were to direct the work of the large camp libraries and after a few months the small camps, posts, and marine stations were placed under his administration. Mr. Malcolm G. Wyer, who had been director for more than a year, had carried the peak of the load and was now being released at his own request to resume his duties as Librarian of the University of Nebraska. Some of the camps were being vacated and the library service discontinued. From week to week the small camps and stations were being closed. It was a period of curtailment of service due to discontinuance of military posts on account of mustering soldiers out of the army. The problem was to keep the service up to the present standard of efficiency and to bridge the gap between the Library War Service and the Army and Navy Library Service. The transfer had to be made so that the soldiers of the standing army and the sailors in the navy might continue to enjoy the use of books and a library service as good or better than that rendered by the Library War Service.

In order to direct camp library work more efficiently, Mr. Severance visited practically all the large camps in the east, south and middle west, which were not covered in his tour inspection in February and March. His personal contacts and conferences with the library personnel and the commanding officers contributed largely towards keeping the library service up to the standard reached when the camps were most active. The following camps were included in his several trips out from Washington: Mills; Upton; Merritt; Meade; Dix; Gordon; Jackson; Lee; Great Lakes Naval Training Station; Jefferson Barracks; the U. S. Prison and the Military Prison camp at Fort Leavenworth, where the men were learning by actual experience and by the use of text books, the science of dairying, poultry raising, hog raising, and other agricultural projects; the Marine Training Station of Quantico and Paris Island and the Dispatch Office at Newport News and many small camps, hospitals, and out-posts.

#### *Library War Service Transferred to the Navy and the War Department*

The appropriation bill for the Navy passed by Congress in 1919, provided for the continuation of the library service rendered during the war by the A. L. A. The Assistant Director of the Library War Service in charge of the library service for the naval stations, battleships and the like, Charles H. Brown, formerly Reference Librarian of the John Crerar Library and Assistant Librarian of the Brooklyn Public Library, was transferred to the Navy Department as Library Specialist, Sixth Division Bureau of Navigation. His salary and that of his assistant were paid from funds appropriated by Congress for the maintenance of the Navy. In this way the Library

War Service for the Navy was conserved and established on a permanent basis. A similar arrangement was made with the War Department. Luther L. Dickerson, formerly Librarian, Camp Doniphan, and of the Library for the Army of Occupation at Coblenz, became the first Librarian of the War Department to whom the books, equipment, and personnel in the training camps, military posts, and hospitals were transferred in the fall of 1919, with the understanding that the Library Service created by the A. L. A. for the soldiers would be cared for by the War Department for the benefit of the American Soldiers in the Army and in the Military Hospitals.

The details of the transfer of books, equipment, and personnel were completed in October so that Mr. Severance, after six months' work supervising camp libraries and the transfer of the work to the Library of the War Department, was released from the Library War Service. The Library War Service continued to serve the soldiers in the veterans' hospitals, and the soldiers in their homes. This forms another chapter in the annals of the American Library Association Service to soldiers not treated in this article.

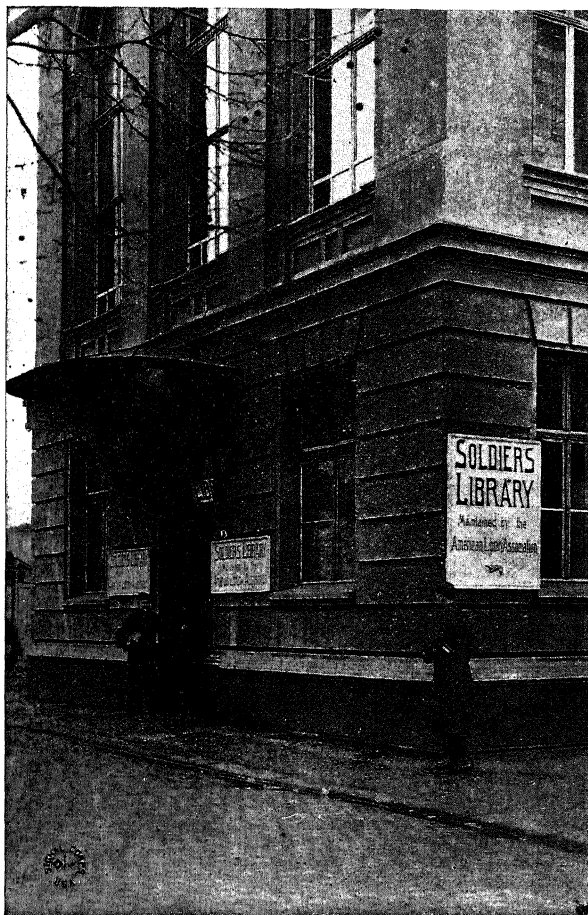
### *Library War Service Overseas*

This arrangement and transfer did not apply to the Library Service being rendered to the U. S. Army of Occupation stationed at the Coblenz bridgehead. This Library of more than 20,000 volumes was housed in the German Officers Club in Coblenz, in which there was ample reading room space for both officers and soldiers. At this time, spring of 1920, there were ninety stations where books were available for soldiers who were manning military posts covering many square miles of territory and numerous little villages from the famous military fortifications Ehrenbreitstein north to Andernach along the Rhine River and to points west and south of Coblenz.

The Headquarters of the Library War Work in Europe for the overseas armies was opened April 1, 1918 at 10 Rue de l'Elysee, Paris, a large building formerly the house of the Papal Legate, across the street from the French White House, or the official home of the President of the French Republic. The first books shipped overseas for the American Expeditionary Forces from the Dispatch Office at Hoboken were sent on the transports with the soldiers and were unloaded in France and placed in Y. M. C. A. huts or given directly to the men, but when the A. L. A. secured headquarters the books were assembled there and a central library was opened. From this office books were distributed to the Y. M. C. A., Knights of Columbus, Salvation Army and other centers wherever soldiers were stationed. This office also sent by mail books to more than 20,000 men. The lack of ships and transports to carry freight and soldiers to Europe greatly delayed American participation in the war. Even so, General John J. Pershing, who knew the value of reading matter in sustaining the morale of the American soldiers, recommended to the Secretary of War, Newton D. Baker, that every transport carrying soldiers to France should reserve space for 100,000 books a month.

"After the signing of the Armistice, the demand for books increased greatly, especially for books of an educational nature. In order to meet this demand, the A. L. A. shipped to France after December 1, 1918, a total of nearly half a million educational books and by May 1, 1919, more than 2½ million books. General Pershing in a letter to Mr. Stevenson April 18, 1918 wrote: "It has rendered a signal service to the army educational program by providing reference libraries for the American Expeditionary Forces, University at Beaune and a large number of army schools.

This Library in Paris was primarily a public library for American soldiers which later became in its administration and function an American public library. The



American Library in Coblenz for the Army of Occupation

American soldiers remaining for a time in Paris came here to read. Frenchmen, Englishmen, and Americans in Paris and citizens of other nationalities came here to read and study. It was a library of 20,000 volumes rich in works on art, on the history, literature, description, travel and civilization of France, England, and the United States. The American could learn from books and periodicals in this library about European civilization and the Europeans could inform themselves about American ideals and aspirations.

The American and English residents of Paris and many French readers desired to have this library remain in Paris. It was evident that the funds of the Library War Service could not care for this library beyond the period when the American soldiers in Europe were sent home and mustered out of service. The officials and other leaders of the A. L. A. desired to have the library remain as an illustration of what an American public library is like. The books had been accessioned, classified, and cataloged, in accordance with modern library practice. A charging system was established;

a few Library Bureau steel stacks were installed as well as all other equipment and conveniences to be found in a modern public library. Burton E. Stevenson, Librarian of the Public Library of Chillicothe, Ohio, was chosen to represent the Library War Service overseas. In April 1918, he opened an office in the building which now houses the library and directed the Library War Work until the American soldiers were withdrawn from France when he negotiated with leading men in Paris for the transfer of this library to a Corporation known as the American Library in Paris which he had helped to form with the advice of the Headquarters of the American Library Association. The transfer was not consummated nor was the financial support assumed by the Corporation until late in 1920.

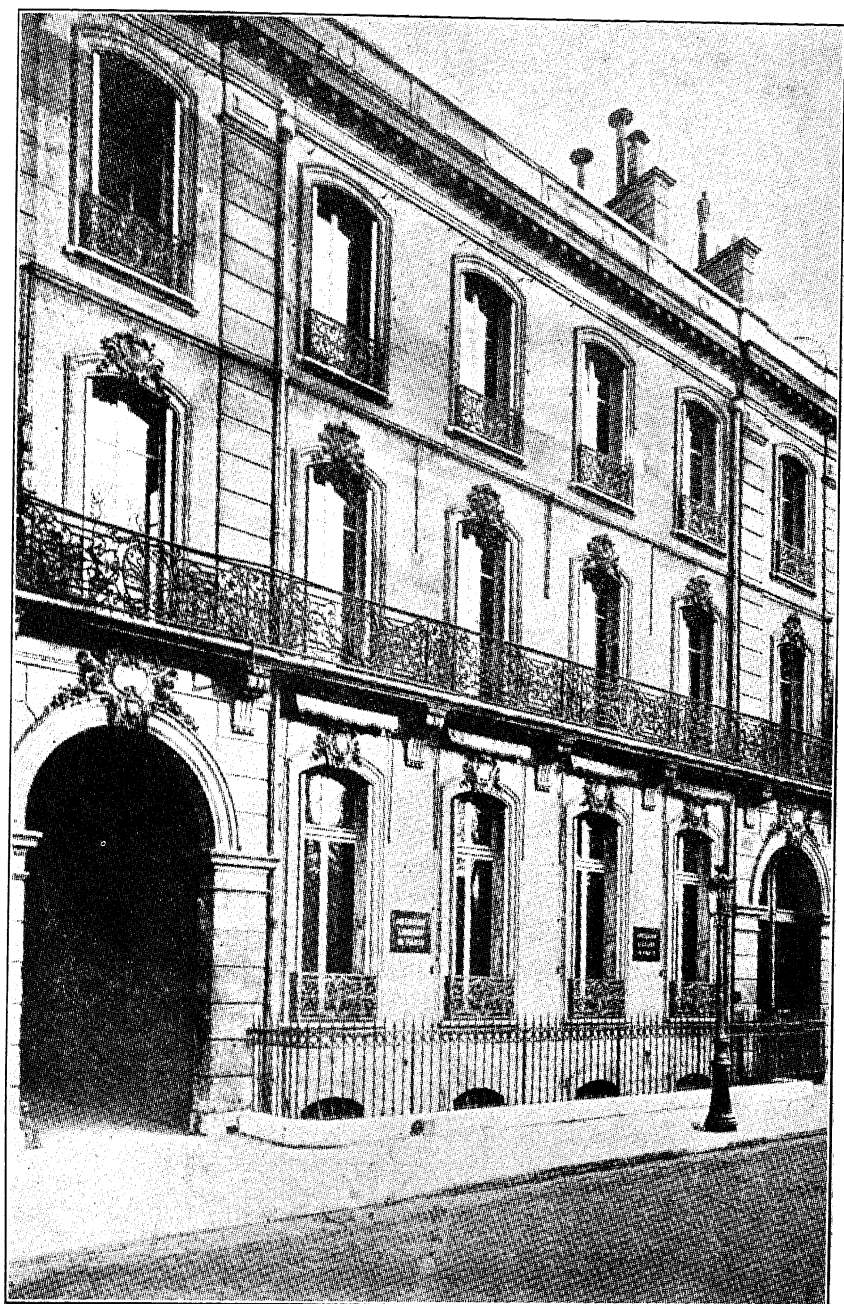
#### *Distribution of Surplus Books*

In the meantime more than a million of the books purchased for the soldiers overseas were shipped back to New York. Twenty-two thousand three hundred and twenty-five (22,325) books were distributed as gifts; 27 collections with a total of 4,901 volumes going to the Red Cross, Albania, Bosnia, Greece, Montenegro, Poland, Roumania, etc.; to American Relief Association in the Near East; to the Y. M. C. A. and Y. W. C. A. in Egypt, Czechoslovakia, Russia, Poland, etc. Fifteen collections comprising 1,257 volumes were sent to reconstruction and college units, the Anne Morgan Units and Knights of Columbus for their permanent collection; to universities, colleges, and permanent organizations, the following: Louvain, 950 volumes; Aix-Marseilles, 465 volumes; Besancon, 445 volumes; Beaune (municipality) 1,000 volumes; the Universities of Bordeaux, Caen, Clermont-Ferrand, Dijon, Grenoble, Lyon, Montpellier, Nancy, University of Paris, Poitiers, Rennes, Strasbourg, and Toulouse, collections averaging 500 volumes, a total of 21 collections, comprising 9,692 volumes. In addition, 1,290 volumes were sent to the Syrian Protestant College at Beyreut; 1,620 volumes to Robert College, and 1,155 volumes to the Woman's College at Constantinople; 400 volumes to the American University Union in London, and 550 volumes to the English Speaking Union in London; and 400 volumes to the Anglo-American Club at Oxford.

#### *American Library Association European Representative*

For the fourth time, Dr. A. Ross Hill, President of the University of Missouri, was asked by the Library War Service to release Henry O. Severance, for six months beginning December 1, 1919, for the special work of directing the library work for the Army of Occupation at Coblenz, Germany. This request was granted and upon his arrival in Paris, just before Christmas, Mr. Severance found that plans had been changed. Burton E. Stevenson, in charge of the Library War Service in Europe, after two years of strenuous work and successful accomplishments, decided to return to his home in Chillicothe, Ohio. After a month's experience in the American Library with Mr. Stevenson and an acquaintance with the duties of the representative of the American Library Association in Europe, Mr. Severance assumed the duties and responsibilities of the European Representative of the American Library Association, Librarian of the American Library in Paris, and Director of the Library War Work at Coblenz.

In transferring the American Library to the Corporation known as the American Library in Paris, the American Library Association reserved the right to name the librarian to be appointed by the Corporation. The purpose of this reservation was to enable the American Library Association to have as a personal representative, a librarian who had the technical and professional training, experience, and a knowledge of the best traditions of American library practice. Such a li-



The American Library in Paris, 10 Rue de L'Elysee

brarian could counsel and advise with the representatives of the governments of Europe and with the officials of municipalities on establishing and equipping libraries, on library personnel, on training of men and women for the profession, on children's librarians—in fact on all phases of library administration, theory, and practice. This Library was to be an outpost or European headquarters for information on library matters for all Europe and Asia. An American Librarian could advance the cause and fulfill the purposes of the American Library Association as no foreign librarian could. Early in 1920, a unit of the Library Bureau steel stacks was installed, and a children's room was opened—something new in France. The Anne Morgan Commission on devastated regions of France which helped refugees to return to their home towns, reconstructed and rebuilt homes and public rooms in which children's libraries were established, based on the ideas of the children's reading room and equipment of the American Library. An indication of the result of this policy, one needs only to recall the success of the Library Training School conducted for several years in the American Library of Paris. Several European nations were represented by the students of the school. Representatives of the nations inspected the library and with the advice of the librarian returned to their own countries with a determination to improve their own libraries.

Missouri's contribution to the Library War Service overseas is not limited to the personal service of her representative. It includes the distinguished service of the vocational and other books which she helped to purchase—the books which helped many a boy to prepare himself for his work or profession or trade back home—the books which remain in the American Library in Paris and those distributed as permanent collections among European universities and welfare organizations in Russia, Poland, and the Near East countries—books which convey to these nationalities the aims and purposes of the American people. These books are messengers of good will, the harbingers of international amity. The librarians of Missouri mentioned in the preceding pages are not the only Missouri librarians who contributed to the Library War Service. Every one in his own way and in his own library did his bit. In the Appendix may be found a directory of the librarians who were in the Library War Service outside of their own libraries.

Any statement commending the service of the American Library Association in the training camps and overseas must necessarily reflect credit upon the service rendered by Missouri and other states. I am, therefore, quoting below excerpts from letters of Raymond B. Fosdick, Chairman of the Commission of Training Camp Activities and a letter of General John J. Pershing.

On March 25, 1918, Mr. Fosdick wrote to Dr. Herbert Putnam, Director of the Library War Service:

"I want to express to you our appreciation of the excellent service rendered by the American Library Association in the training camps. The work is going splendidly and we are constantly in receipt of enthusiastic comments from Commanding Officers and others. I do not know of a greater service to the men at the present time than the one which you are so effectively carrying on. The district directors of the Commission, who are constantly in touch with all the camps in the United States, have nothing but praise for the work and for the fine co-operative spirit in which it is carried on, and the War Department is proud to be associated with an activity that means so much in rationalizing the lives of our men."

On April 18, 1919, General Pershing wrote to Burton E. Stevenson, European Representative of the American Library Association:

"I want to express to the American Library Association my sincere appreciation, and that of the officers and men under my command, for the valuable services which it has rendered to the American Expeditionary Forces.

"In February, 1918, your Association submitted to these headquarters a well-conceived plan for furnishing books to the American soldiers in Europe, and asked to be permitted to assume the entire responsibility for this important service. The confidence which the Army then reposed in you has been amply justified by the results achieved."

## APPENDIX

## Missouri Contributions to the Library War Fund, 1917.\*

Alba.....	\$ 11.00	Mexico.....	\$ 121.19
Arkoe.....	6.00	Moniteau Co., (drawn on California).....	15.00
Bowling Green.....	56.25	Monroe City.....	65.00
Butler.....	2.00	Neck City.....	12.00
California.....	27.56	Nevada.....	277.00
Canton.....	10.25	Newburgh.....	15.25
Cape Girardeau.....	357.00	Oronogo.....	5.50
Cartersville.....	98.25	Paris.....	151.95
Charlestown.....	7.00	Pineville.....	24.35
Craig.....	32.00	Plattsburg.....	4.00
Fulton.....	72.50	Purcell.....	28.50
Hannibal.....	149.25	Rolla.....	200.00
Holliday.....	15.45	St. Charles.....	57.69
Holt.....	20.00	St. James.....	84.50
Independence.....	2.00	St. Joseph.....	473.75
Jefferson City.....	486.46	St. Louis.....	12,072.62
Joplin.....	483.50	Savannah.....	75.00
Kansas City.....	3,540.50	Sedalia.....	733.55
Kirksville.....	198.70	Sullivan.....	14.40
Latour.....	235.01	Vienna.....	3.00
Lebanon.....	5.00	Warrenton.....	86.00
Macon.....	12.00	Webb City.....	322.81
Mansfield.....	8.20	Webster Groves.....	55.28
Maryville.....	146.19	Worth.....	70.00

Total..... 21,634.05

\*List supplied by American Library Association War Finance Committee.

Towns Contributing Books to Soldiers' Libraries  
March 18 to April 18, 1918

Armstrong.....	58	*Marshall.....	171
Ash Grove.....	20	*Maryville.....	500
Aurora.....	170	*Mexico.....	594
Bloomfield.....	53	*Moberly.....	550
*Bonne Terre.....	250	Monett.....	15
*Bowling Green.....	277	*Nevada.....	292
Brashear.....	143	*Paris.....	693
*Brookfield.....	324	Perry.....	45
*Cape Girardeau.....	156	*Poplar Bluff.....	468
*Carthage.....	899	Purdy.....	21
Charleston.....	23	Puxico.....	22
Chillicothe.....	166	*Rolla.....	218
Clinton.....	650	*Salisbury.....	278
*Columbia.....	2,200	St. Joseph.....	2,500
East Prairie.....	81	St. Louis.....	35,000



Elsberry.....	157	*Springfield.....	448
*Fayette.....	210	Stockton.....	5
Green City.....	24	*Trenton.....	1,090
*Huntsville.....	138	Triplett.....	11
Jasper.....	17	Troy.....	70
*Joplin.....	1,990	*Warrenton.....	55
Kansas City.....	27,000	*Warrensburg.....	57
*Kirksville.....	2,400	*West Plains.....	81
Ladsonia.....	50	Williamsville.....	66
*Louisiana.....	125	Wyaconda.....	59
Mansfield.....	15		

\*Public or College Libraries in town.

### Missouri Librarians in the Library War Service.

The data for the exact time rendered is not available. In such cases the time of beginning service is indicated.

Blackwelder, Paul. Assistant Librarian, St. Louis Public Library. Librarian, Camp Pike from its organization, November 13, 1917 to January 15, 1918.

Bostwick, Arthur E. Librarian, St. Louis Public Library. Member of the War Service Committee 1917, First Chairman of Camp Libraries, Dispatch Agent for St. Louis 1918-1919, Supervisor of Jefferson Barracks 1918-1919, Chairman Committee of Sixteen in St. Louis for raising the United War Fund.

Brashear, Roma. Chillicothe Missouri. Served on the Paris Staff.

Bundy, Irving R. Librarian, State Teachers College, Kirksville. Assistant, then Librarian of Camp Bowie February 27-June 1, 1918, and August 1918. American Library Association Representative on transport Boston to Brest and back to New York.

Chenery, Winthrop H. Librarian of Washington University, St. Louis. Librarian of Camp Pike, Little Rock, Arkansas January-June 1918; Camp Greene, Charlottesville, North Carolina July-August 1918; Camp Dodge, Iowa, June-August 1919.

Cleeton, Glen U. Missouri State Normal. Assistant at Camp Doniphan June 20, 1918.

Cunningham, Jesse. Librarian, St. Joseph Public Library. Assisted in collecting books for the soldiers and money for the Library War Service of the American Library Association; in selling Liberty Bonds and in drives and campaigns for the welfare organizations. Librarian, Camp Grant, Illinois May-September, 1917.

Daggett, William A. Librarian, State Teachers College, Springfield. Y. M. C. A. service overseas May 1918-July 1919. Served in the American Library Association work for a time at Gevrey getting books out of the warehouse and sending them to Paris. He collected and distributed canteen supplies throughout this area for the Y. M. C. A. before the Armistice.

Easton, Valeria. Assistant, University of Missouri Library. Librarian, Base Hospital, Camp Shelby August 3, 1918-June 19, 1919. General Hospital No. 2. Fort McHenry, Baltimore, June 20, 1919-July 14, 1919. Librarian and Supervisor for Southeastern District. Resident United States Public Health Service Greenville, South Carolina, July 15, 1919-February 28, 1920. Resident United States Public Health Hospital No. 45, Biltmore, North Carolina March 1, 1920-October 17, 1921.

- Edwards, Ward. Librarian, William Jewell College. Assistant, Camp Funston June 20-September 1, 1918.
- Harris, Helen. Sedalia Public Library. Acting Librarian, Walter Reed Hospital, Washington, D. C. 1919.
- Hencke, Ferdinand. Assistant, St. Louis Public Library. Librarian, Camp Funston, 1918-19.
- Jansson, Eric. Assistant, St. Louis Public Library. Assistant Camp Pike, November 13, 1917-1918. Assistant, Camp Dodge, 1918.
- Jeffers, Samuel A. Professor, Central College, Fayette. Assistant, Kelly Field, San Antonio, Texas, June-September, 1917.
- Keller, Clifford. Assistant, St. Louis Public Library. Assistant, Camp Funston for a short time.
- Palmer, Grace. Librarian, Southwest State Teachers College, Springfield. Student Army Training Corps, Hospital Service during the influenza epidemic, 1918.
- Peebles, Annalee. Assistant, University of Missouri Library. Classifier of Correspondence, United States War Department, Bureau of Aircraft Products, Washington, D. C. June 1918-January 1919. Library Assistant, American Library Association. Camp Library, Camp Gordon, Atlanta, Georgia July 1919-January 1920.
- Peebles, Ella. Assistant, University of Missouri Library. Index and Catalog Clerk, War Department, Washington, D. C. March 1918-July 1919. In charge of Camp libraries in military posts in Southern Arizona for the American Library Association November 1919 until the work was taken over by the War Department.
- Petty, Gerald. Assistant, University of Missouri Library. Assistant, Camp Pike, 1919.
- Pritchett, Betty H. Glasgow, Missouri. Librarian, Camp Pike Base Hospital 1918-1919. United States General Hospital Librarian, Fort Benjamin Harrison, 1919.
- Quigley, Margery. Assistant, St. Louis Public Library. Librarian Base Hospital, Camp Funston, May 31, 1918.
- Rae, Robina. Glasgow, Missouri. Assistant then Librarian Base Hospital, Camp Pike, 1919.
- Rice, Justus. Assistant, St. Louis Public Library. Librarian, Jefferson Barracks June 7-September 20, 1918.
- Roberts, Bessie M. Assistant, University of Missouri Library. Index and Catalog clerk in Ordnance Division, War Department, Washington, D. C. February 1918-1920.
- Severance, Henry O. Librarian, University of Missouri. Librarian, Camp Funston, September 14-27, 1917. Librarian, Camp Custer, August 1918. Representative of the Library War Service in General Field Service, 1919. Assistant to the General Directory of the Library War Service in charge of Camp Libraries April 20-October 1, 1919. European Representative of the American Library Association, Paris, France, January-July, 1920.
- Spicer, Inez. Assistant, University of Missouri Library. Index and Catalog Clerk, March 1918-July 1920, Quartermaster's Office, War Department, Washington, D. C. also in subsistence division of the same department.
- Throop, George R. Assistant Librarian, St. Louis Public Library. Organized the Fourth Liberty Loan Bond sale campaign.
- Tucker, Raymond R. Assistant, St. Louis Public Library. Librarian, Jefferson Barracks, September 20 to November 10, 1918, when he resigned to enter the S. A. T. C.

- Wales, Elizabeth B., Secretary Missouri Library Commission. State Director for the American Library Association in securing books and money for the Library War Service 1917-1919. State Agent for distribution of food pamphlets for the State Food Commission. Chairman on Library publicity for the Federal Food Administration in Missouri. Assistant in Book Department, Headquarters Office, Washington, D. C. 1919.
- Wells, C. Edwin. Librarian Northwest State Teachers College, Maryville. Chairman of several welfare organizations in the collecting of funds and of books.
- Wheeler, Harold. Librarian, School of Mines, Rolla. Librarian, Camp Humphreys, Virginia, 1918-1919.
- Wright, Purd B. Librarian. Kansas City, Public Library. Divisional Director of the Library War Service 1917. Supervisor of Camps Funston and Doniphan. Librarian of Camp Funston. Representative of General Field Service of the Library War Service April 14, 1918.
- Wright, Purd B, Jr. Kansas City. Assistant, Camp Funston, summer 1918.

## INDEX

- Allen, Major-General Henry T., 21.  
 American Expeditionary Forces, 9  
 A. L. A.  
     Invited to provide library facilities, 7.  
 Am. Lib. in Coblenz, 33.  
 Am. Lib. in Paris, 32-37.  
     The building, 35.  
 Anne Morgan Commission, 36.  
 Archangel, 10.  
 Army library service, 31; 32.  
 Army of occupation, 9.  
  
 Baby bonds, 24.  
 Baker, Newton D., 10; 32; 70.  
 Barnes Hospital, unit No. 21, 20.  
 Beaune, University, 9; 32.  
 Beauregard, Camp, 24; 31.  
 Blackwelder, Paul, 18; 39.  
 Blair, Irene E., 17:  
 Book campaigns  
     Gifts, 8.  
     Purchases, 8; 9.  
 Books  
     For soldiers, 8.  
     On army transports, 32.  
     Distribution of surplus books, 34.  
     Vocational books, 9; 15; 30.  
 Bostwick, Arthur, 8; 18; 39.  
     Portrait, 19.  
 Bowie, Camp, 24.  
 Bowker, Richard R., 8.  
 Brashear, Roma, 39.  
 British Red Cross, 18.  
 Brown, Charles H., 31.  
 Brown, Walter L., 7.  
 Bundy, Irving R., 39.  
 Burtis, George L., 20.  
 Butler, A. Earle, 20.  
  
 Camp libraries, 3; 24; 31.  
 Campaigns for funds, 10.  
 Cape Girardeau, State Teachers College Library, 27.  
 Carpenter, George O., 18.  
 Chenery, Winthrop H., 39.  
 Clark, Lieutenant Albin L., 20.  
 Clayton, H. V., 25.  
 Cleeton, Glen U., 39.  
 Coblenz, 9; 10.  
 Collins, Mrs. E. L., 20.  
 Columbia, Missouri, 29.  
 Columbia Library Club, 30.  
  
 Commission on Training Camp Activities, 3; 7.  
 Countryman, Gratia, 8.  
 Cunningham, Jesse, 8; 16; 39.  
 Cowan, Leslie, 29.  
 Craigie, Major Wallace M., 29.  
 Custer, Camp, 30.  
  
 Daggett, William A., 39.  
 Dickerson, Luther L., 32.  
 Dix, Camp, 31.  
 Dodge, Camp, 31.  
 Dollar-a-month Club, 10.  
 Doniphan, Camp, 24; 27; 31.  
 Dudgeon, Matthew S., 8; 36.  
  
 Easton, Valeria, 30, 39.  
 Edwards, Ward, 25; 40.  
 Eldred, Millard F., 27.  
  
 Food Conservation, 13; 15; 20; 24.  
 Fort Leavenworth, Prison Camps, 31.  
 Fort Riley, 21; 25; 27; 29.  
 Fort Sam Houston, camp, 24.  
 Fort Sill, 28.  
 Fosdick, Raymond B., 7; 36.  
 Funston, Camp, 24.  
     Camp Library, 24; 25.  
 Furlong, Camp, 31.  
  
 Gardner, Frederick D., Governor, 13.  
 Gordon, Camp, 30; 31.  
 Grant, Camp, 26; 31.  
 Great Lakes Naval Training Station, 31.  
 Greene, Charles W., 29.  
 Guerrier, Edith, Library Publicity Director, 13.  
  
 Hannibal Public Library, 16.  
 Harris, Helen, 40.  
 Hazelhurst Flying Field, 29.  
 Hedrick, Earl R., 29.  
 Henke, Ferdinand, 21; 25; 40.  
 Hill, A. Ross, 22; 27; 29; 34.  
 Hill, Frank P., 8.  
 Hoboken, 27.  
 Horine, Harriet N., 17.  
 Hospital Library Service, 31; 32.  
 Hostess houses, 11.  
 Hudson, J. W., 29.

- Hudson, Manly O., 29.
- Institutional Libraries, 27.
- Jansson, Eric G., 21; 40.
- Jeffers, Samuel A., 40.
- Jefferson Barracks, 20; 31.
- Joffre, Gen. J. J. C., 20.
- Jones, Cliff C., 24.
- Jones, I. Burr, 23.
- Joplin Public Library, 16.
- Kansas City — Government Motor  
Mechanic Schools, 25.
- Kansas City Public Library, 21.  
Campaign for books, 21; 23;  
Dispatch office, 11; 23;  
Staff, 24.
- Kearney, Camp, 31.
- Keller, Clifford, 21, 40.
- Kelly Field, 31.
- Kerr, Willis H., 22; 25.
- King, William, 22.
- Knights of Columbus, 7; 11; 25; 32.
- Knowledge Wins, 14; 30.
- Knox, Camp, 31.
- Lee, Camp, 31.
- Letters of appreciation, 36.
- Liberty Bonds, 29.
- Liberty Loans, 18; 24.
- Library float in Kansas City, 23.
- Library Specialist, Navy Department,  
31.
- Library War Council, 10; 22; 26.
- Library War Service  
Activities, May 1918, 11;  
Bookplate, 9;  
General field service, 30;  
Organization, 7; 8;  
Overseas, 32; 37;  
Preliminary Committee, 7; 8;  
Transfer to war and navy depart-  
ments, 32;  
War service committee, 8.
- Logan, Camp, 24.
- Lord, C. G., 22.
- McArthur, Camp, 24; 31.
- Meade, Camp, 31.
- Merritt, Camp, 31.
- Mexican Border, 10.
- Milam, Carl H., 3.
- Miller, Walter, 29.
- Million-dollar campaign, 24.
- Mills, Camp, 31.
- Missouri Activities  
Campaign for money, 12;  
Collection on books, 11; 12;  
Organization, 11.
- Missouri librarians in the service, 39;  
41.
- Missouri Library Commission, 12-15;  
16.
- Missouri Public Libraries, 15; 16.
- Missouri State Council of Defense, 13.
- Missouri University, 28;  
Depository for books for soldiers, 30;  
Faculty military organization, 29;  
Faculty in civilian war work, 29;  
R. O. T. C., 28; 29;  
S. A. T. C., 28.
- Missouri University Library, 30; 31.
- Missouri's Contribution  
List of towns contributing books, 38;  
List of towns contributing money, 38;  
Summary, 36.
- Mobilization for war, 7.
- Mumford, Frederick B.,  
Federal Food Administrator, 13.
- Navy library service, 31; 32.
- Newport News, 27.
- Newport News, Dispatch Office, 31.
- Nichols, Jesse Clyde, 24.
- Noyes, Guy L., 29.
- Palmer, Grace, 40.
- Paris Island, Marine Training Sta-  
tion, 31.
- Peebles, Annalee, 30; 40.
- Peebles, Ella, 30; 40.
- Pershing, Gen. John J., 32; 36.
- Pettis County Historical Society, 17.
- Petty, Gerald, 40.
- Posters, 30.
- Pike, Camp, 24; 27; 31.
- Pritchett, Betty H., 40.
- Putnam, Herbert, 7; 8; 36;  
General director, 8.
- Quantico, Marine Training Station, 31.
- Quigley, Margery, 21; 25; 40.
- Rae, Robina, 40.
- Red Cross, 15; 18; 24; 29.

- R. O. T. C., 28.  
 Rice, Justin, 20; 40.  
 Roberts, Bessie M., 30; 40.  
  
 St. Joseph Public Library, 16.  
 St. Louis Public Library  
   Dispatch Office, 12; 18;  
   Housed relief organizations, 18;  
   Raising funds, 20;  
   Staff, 18;  
   War service, 18.  
 Salvation Army, 10; 25; 32.  
 Sedalia Public Library, 16.  
 Severance, Henry Ormal, 26; 29;  
   At Camp Custer, 30;  
   At Camp Funston, 22; 29; 30; 40;  
   Director of Camp Libraries, 31;  
   Director of Library war work at  
     Coblentz, 34;  
   European representative, 34;  
   General field service, 26; 30; 31;  
   Portrait, 28.  
 Shelby, Camp, 30.  
 Sherman, Camp, 26.  
 Siberia, 3.  
 Soldiers' Library War Fund Committee, 13.  
 Spicer, Inez, 30; 40.  
 Springfield Public Library, 17.  
 Stevenson, Burton E., 32; 34.  
 S. A. T. C., 26; 28.  
  
 Taylor, Camp, 31.  
 Thrift stamps, 18; 24; 27.  
 Throop, George R., 18; 40.  
 Travis, Camp, 24.  
 Tucker, Raymond R., 20; 40.  
 Tyler, Alice S., 8.  
  
 U. S. Agricultural Dept. Library, 13.  
 U. S. Army of Occupation, 32.  
 U. S. Bureau of public information, 15.  
 U. S. Federal food administration, 13.  
 United war work campaign, 10.  
 Upton, Camp, 31.  
  
 Veterans Hospital, 32.  
 Vladivostok, 10.  
 Vocational books, 15; 30.  
  
 Wales, Elizabeth B., 8; 12; 16; 41;  
   State Director, 13;  
   Chairman, Library Publicity Committee, 13.  
 War Garden Commission, 15.  
 Webb City Public Library, 16.  
   Welfare organization, 7; 9; 10.  
 Wells, C. Edwin, 41.  
 Wheeler, Harold, 41.  
 Wood, Major-General Leonard, 22; 25;  
   and aides-de-camp, 26.  
 Wright, Purd B., 8; 21; 22; 23; 24;  
   25; 41;  
   At Camp Doniphan, 25;  
   At Camp Funston, 25;  
   At Camps in Texas and Louisiana, 25;  
   General field service, 26; 30; 31;  
   Offered military rank of Major, 26;  
   Portrait, 21;  
   Work at Funston commended, 27.  
 Wright, Purd B., Jr., 25; 41.  
 Wyer, James I., Jr., 8.  
 Wyer, Malcolm G., 31.  
  
 Y. M. C. A. in France and Italy, 29.  
 Y. M. C. A., 7; 10; 11; 15; 20; 21; 22;  
   25; 30; 32.

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VOLUME 17, NUMBER 3

LIBRARY SERIES 17

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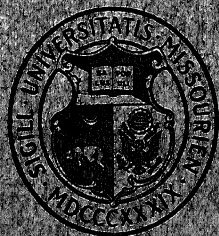
WILLIAM BENJAMIN SMITH, Ph. D., LL. D.

A Friend of the University of Missouri Library

By

HENRY ORMAL SEVERANCE

Librarian



Columbia, Missouri

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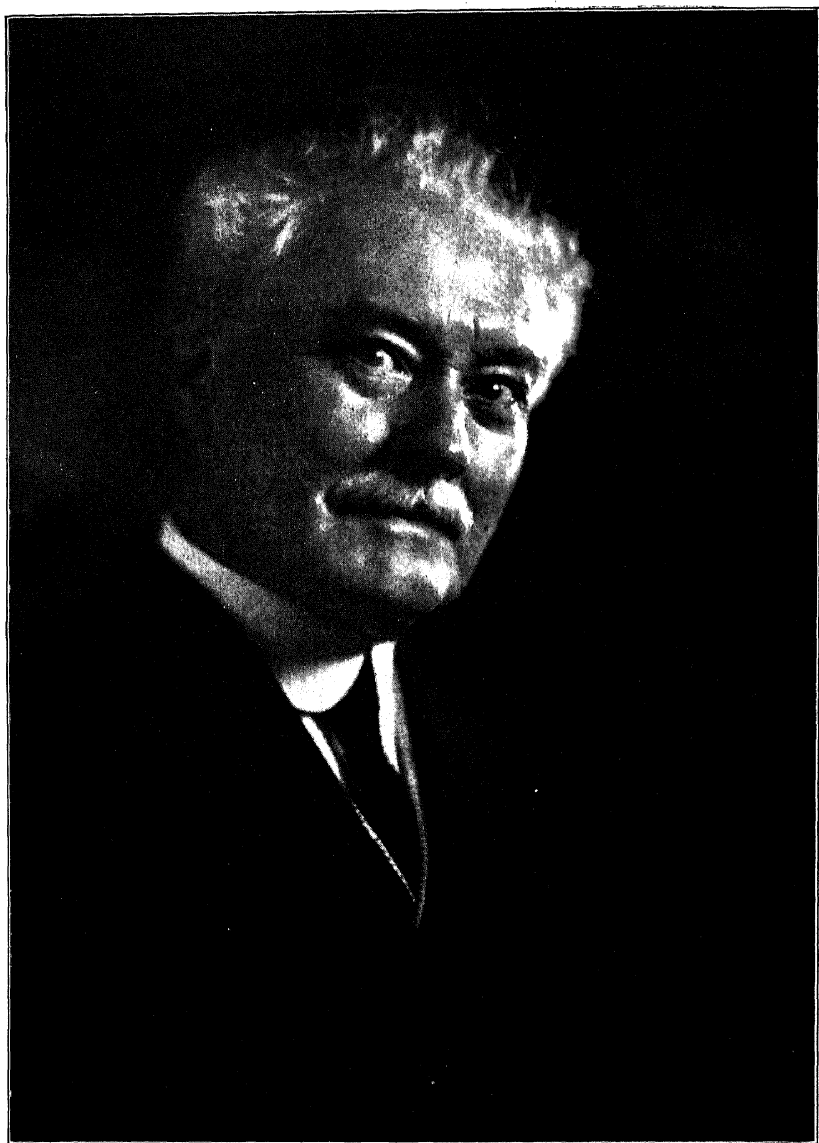
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JANUARY 20, 1936









WILLIAM BENJAMIN SMITH, Ph.D., LL.D.

# THE UNIVERSITY OF MISSOURI BULLETIN

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## Preface

The work and influence of Doctor William Benjamin Smith touched the history of Missouri at many points, since fully one-half of his life span of eighty-four years was spent in this State. He grew to young manhood near St. Joseph. His University training and his early experiences as a teacher were gained at the University of Kentucky, but he returned to Missouri in 1881 as a professor of physics in Central College, Fayette, where he continued four years. From 1885 until 1893 he was a teacher in the University of Missouri, first as professor of physics and later of mathematics. In 1893 he was called to Tulane University, New Orleans, where he served fourteen years as professor of mathematics and eight years as professor of philosophy. After his retirement from Tulane, Dr. Smith returned to Missouri in 1923, making his home in Columbia, and continuing his independent research and literary work until his death in 1934.

During his long career, Dr. Smith accumulated a library of more than 2000 volumes, and these he presented to the University of Missouri Library. This unusual collection contains 325 volumes in the field of mathematics and physics, 300 volumes in philosophy, 900 in religion and theology, and 500 in the fields of history and literature. The religious class includes several translations of the Bible and reproductions of several celebrated codices of the *Old* and of the *New Testaments*, such as the *Sinaitic Codex*, *Codex Ephraemi Rescriptus*, the *Bezae Codex Cantabrigiensis*, *The Testament of the Twelve Patriarchs*, *The Sons of Jacob*, *Works of Philo Judaeus* 1691, and the very rare work *Novum Testamentum Graecum* in two volumes, 1751, edited by J. J. Wetstenius.

On June 3, 1931, the University of Missouri conferred upon Dr. Smith the honorary degree of LL.D. It seems fitting, therefore, that the University should present this sketch of Dr. Smith, a Missourian, and one of the most learned men of our time. The sketch is based on the incomplete manuscript of Dr. Smith's autobiography, supplemented by personal conversations with him and with his friends. The list of his writings was compiled largely by the writer's secretary, Frances McKee (Mrs. Fred S.) Hanna, assisted by the writer and Dr. Smith himself.

HENRY ORMAL SEVERANCE.

## CONTENTS

Preface.....	3
Life of Dr. William Benjamin Smith.....	5
Early Life.....	5
The Professor.....	8
Contributions.....	10
Natural Science.....	10
New Testament Criticism.....	10
Classical Literature.....	12
Philosophy.....	13
Other Fields of Learning.....	13
List of Dr. Smith's Writings.....	17
Books.....	17
Articles.....	17
Book Reviews.....	20
Manuscripts.....	20
Published Comments on Dr. Smith's Work.....	22

# William Benjamin Smith

1850-1934

## EARLY LIFE

Dr. William Benjamin Smith was one of the greatest scholars of modern times. It has been said that he had the greatest mind since Immanuel Kant and that he was the "coequal of the omniscient Goethe". Another writer has compared Dr. Smith to Leibnitz and wrote that his mind was truly Leibnitzian in scope and versatility, in the exactness, the depth, and the immensity of his scholarship.<sup>1</sup> Dr. Smith won distinction in mathematics and physics, in philosophy, in classical literature, and in his Biblical researches and constructive criticisms.

In order to understand his achievements, it is necessary to inquire into his early life. He was endowed with a good physique and a good mind. He came from Virginian ancestry. He was born in Stanford, Kentucky, the son of Jeremiah and Angelina (Kenley) Smith. His grandfather was a pioneer from Virginia who amassed a fortune in lands in Kentucky. William Benjamin's father, Jeremiah, might have inherited the manor and might have settled down to a life of a gentleman of affluence and comparative ease, but he decided to forego such a life and devote himself to the profession of law and to the cultivation of literature and things spiritual.

Jeremiah Smith was engrossed in the reading of the great English literary masters and in the classical writers in translation. Upon graduation from Transylvania University (which later became the University of Kentucky), he practiced law for several years. He won the epithet in his village of "a walking encyclopaedia" because of his wide knowledge and the depth of his learning. For some reason unknown to William, his father sold his practice and moved to a rented farm about ten miles south of St. Joseph, Missouri, but later he purchased a farm nearer the city. His reputation for learning and for a successful practice of law followed him. Consequently, he was invited to join a prominent law firm in St. Joseph, but he declined the honor. He was known to be in sympathy with the southern cause in the Civil War. He was assassinated one day in 1864, while enroute to his farm from the city, by a reckless Federal soldier who with others was stationed in barracks in St. Joseph. Thereupon the direction of the farm fell upon William Benjamin, who was only fourteen years of age, and upon his mother.

This young industrious lad worked hard from early morning until late at night. His patience must have been sorely tried by the slowness of the ox team. He learned to allow for this handicap by starting operations early in the morning. At three o'clock in the morning he would start with his ox team

1. Keyser, Cassius J.: *Scripta Mathematica* 2, no. 4, pp. 305-311.

for St. Joseph, during marketing time, so that his produce might be placed on the early morning market. After the war came the inflation of the dollar; prices were high and crops were abundant. By practicing strict economy, the family became prosperous. The mother and sisters decided to carry on the farm operations and allow William Benjamin to go to college, which at this time was his greatest ambition.

William Benjamin early developed a love for the classics and acquired the mental habits of independent study which may in part explain his method of acquiring knowledge. At the age of eight, his mother found him under the four-poster bedstead, lying face down, reading Homer's *Iliad* in Pope's translation with an Anthon's *Classical Dictionary* by his side. Another favorite was Vergil's *Aeneid* translated by Dryden. At the age of ten, when most American children are just beginning to read English, William Benjamin was studying Latin literature and Latin grammar, and at the age of eleven he was enrolled in the Sleepy Hollow Classical Academy near St. Joseph. His courses included the reading of Vergil, Nepos, and Ovid in the original, and the study of mathematics, physics, and geography. The principal was so busy that he seldom found time to hear William Benjamin recite or read his translations. The student simply stated that he had read so many lines of Vergil and that he had learned the assignments in other subjects. In this way William Benjamin developed the ability to do independent study. He progressed so rapidly that the principal, after four years with William Benjamin, advised Jeremiah Smith, that it was a waste of time and money to keep his son in the Academy. At this juncture his father was killed, so that William Benjamin's academy days were over, but not his studies; they were only temporarily interrupted. He worked the farm in the summer and studied in the office of Colonel J. W. Strong in St. Joseph during three winters.

At the age of seventeen, in 1867, William Benjamin Smith entered the University of Kentucky, having met all the entrance requirements. He wanted to enter Harvard or Yale but could not as he lacked a knowledge of Greek. He made a record for scholarship unparalled in the history of the University of Kentucky. He completed the four-year curriculum in two years. His first year's course included the study of Greek, in which he was extremely interested. During the following summer vacation, he read and wrote all the Greek required in the second year and passed it on examination whereupon he entered the third year and was soon advanced to the fourth year for the study of Thucydides and Isocrates. He also applied himself to the study of Hebrew, Italian, French, and German without a teacher. Because of his proficiency in these subjects a Master of Arts degree was conferred upon him by the University of Kentucky in 1871.

In 1877, he entered the University of Goettingen and amazed the German scholars by winning two prizes for scholarship in the mathematical-physical seminar of the University. These were the first prizes ever won from this



University by an American. Upon the completion of his course, in 1879, the University conferred upon him the degree of Doctor of Philosophy *summa cum laude*.

His training in the exact sciences—mathematics and physics—developed in him a habit of careful investigation of any subject. When he reached a conclusion, he was very positive of its correctness, and when the results were at variance with his preconceived ideas, he would discard the old ideas for the new. He was willing to stand by his convictions let come what would. This is well illustrated in his loss of faith in the creed of the churches of his time. He joined the Methodist Church in his youth but transferred his membership to the Christian Church in Lexington when he entered the University of Kentucky. After graduating from this University, which was controlled by the Disciples of Christ, William Benjamin was retained first as a tutor and then as an assistant in English and Sacred History, teaching the history of Israel from Samuel to the downfall of the Hebrew state. His study of Jewish history brought him into contact with German Biblical criticism as found in the works of Keil, Delitzsch and other critics and philosophers, such as David Hume, Edward Gibbon, Victor Cousin, and Charles Darwin. These studies caused him to consider carefully the creeds and tenets of the Protestant churches. The result was that the pillars of his faith gave way and the creeds lay in ruin about him. He was so honest and so true to his convictions that he thereupon notified the official board of the Christian Church that he had changed his ideas about the church and asked the local Church to release him from its membership. Then, unwilling to compromise the Administration of the University of Kentucky, which was dominated by the Christian Church, he resigned his position on the faculty. Partly to justify his action and partly to clarify his own thinking on this subject he wrote an article on "Who are Christians? We?" published in the *Apostolic Times* in which he set forth the utter collapse of modern faith. This article was followed by another in the *Chicago Times* exposing the general dogmas of the church.

It is not known whether he considered the price he would have to pay for this action in alienating practically all his friends and making it practically impossible for him to secure another teaching position, but knowing Dr. Smith the writer doubts whether a foreknowledge of the results of his decision would have made any difference. He was an independent thinker and nothing but the truth would satisfy him. "Absolutely candid and outspoken, he revealed a spirit quite unrestrained by worldly consideration of safety or prudence." His colleagues were indignant with him. He was branded as an infidel, and no college wanted a professor of this type on its faculty. James Lane Allen, the novelist, a friend of Dr. Smith, knew the story of his friend's apostasy and his attempt to find himself, so in his book *The Reign of Law* he made Dr. Smith the prototype of David the hero. The story of David is said to have been the story in its important outline of Dr. Smith in search of a new basis of faith and belief after he had discarded his early faith.

## THE PROFESSOR

After his resignation from the University of Kentucky following his denouncement of the creeds and dogmas of the church William Benjamin Smith was like a derelict upon the ocean. No ports were open to him. Due to a shortage of available men to teach mathematics and due also to Dr. Smith's extraordinary ability, St. John's College, a Catholic institution at Prairie du Chien, Wisconsin, secured his services. After two years' service he resigned and entered the University of Goettingen, hoping to overcome the handicap of heresy by unusual accomplishments in scholarship. After he earned his Doctor of Philosophy degree from this University, he returned to Lexington and entered upon a campaign to secure a professorship in a college. His credentials were superior, but they were counter-balanced by the spectre of heresy which still, after four years, dogged his steps. At last in desperation he accepted an insignificant position in a woman's private college in Georgetown, Kentucky. The school collapsed in a few months and the principal—the owner—paid him with her note, of which never a cent was collected. This left him without a job in the spring of 1880. A friend of his, who had recently lost a daughter, invited him to spend the summer with him on the farm. Dr. Smith was again a farmer.

In the spring and summer he pushed a second campaign for a position in a college or in a university. Again he was sorely disappointed, and late in the season he accepted a position to teach Latin and Greek in the Bethel Military School, a private school in Virginia. He started his third campaign in 1881, which ended with success. President Hendrix (later Bishop Hendrix) of Central College suggested only one objection to Dr. Smith—that he was too young to occupy the chair of physics, to which Dr. Smith replied that he admitted the offense of being a young man but that he was correcting the habit rapidly and permanently. President Hendrix's rejoinder was to tender the position to Dr. Smith. Religious beliefs were not discussed. When Dr. Smith felt impelled to express his beliefs, he wrote under an assumed name, "Conrad Mascot", and sent his contributions to the *Unitarian Review*.

Central College was the stepping stone for William Benjamin Smith to a successful teaching career of thirty-four years—Central College 1881-1885, University of Missouri 1885-1893, and Tulane University 1893-1915.

Dr. Smith's four years in Central College were probably the happiest four years of his academic teaching career. The atmosphere of culture, the cooperative spirit, the push and energy, the attitude of college men toward learning were all agreeable to him. An added attraction which made his life and work worth while and gave him a new motive, was the influence in his life of Kathleen Merrill, who later became his wife. She was a young woman of great personal charm and beauty, of high artistic nature, of extraordinary gifts in singing. She was teaching vocal music in Howard Payne College, at Fayette.

When Dr. Smith became professor of physics in the University of Missouri in 1885, the President of the University was Dr. Samuel S. Laws, a man of extensive learning, a doctor of medicine, theologian, philosopher, inventor, a man of affairs, an autocrat in the administration of the University. Dr. Smith was young and inexperienced in the ways of men and the world, completely devoted to the things of the mind, absolutely candid. "It is then not strange," to quote Dr. Keyser again, "that, being in no way awed by the President's self-estimate and power, the youthful professor in his contacts with the official head of the institution not infrequently suffered himself to use words which though always spoken in the manner of a gentleman revealed a spirit quite unrestrained by any worldly consideration of safety and prudence." The clashing of intellects, however, was not the immediate cause of the rift between them. When the University was established and for forty years thereafter it maintained a preparatory department for the training of pupils in high school subjects so that they might be prepared for entrance to the University. A large number of high schools had established a sufficiently high standard in 1889 to enable their graduates to enter the University without examination. The preparatory department of the University then became a rival of the high schools. The Missouri State Teachers Association petitioned the Board of Curators to discontinue the preparatory department. Dr. Smith gave an able and forceful address before the Association advocating the discontinuance of the department. President Laws commended him for his able address, but later the President, after due consideration, decided to retain the preparatory department, as it had more students than the University proper, so he ignored the petition of the Missouri State Teachers Association, called his faculty in conference, and declared that the whole movement to abolish the department was an attack upon his administration and that the loyalty of the faculty demanded its support of the President's position. His chief and practically only opponent on the faculty was William Benjamin Smith. The President's contention in this matter was one of the causes which led to legislative investigation of the University. The resignation of the President followed.

Upon the death of Joseph Ficklin, Professor of Mathematics, in 1888, Dr. Smith upon his own request and in response to a petition of advanced students was transferred to the professorship of mathematics, which he held until 1893, when he was called to the chair of mathematics in Tulane University of New Orleans. After fourteen years' service in this chair he became professor of philosophy in Tulane. This was the goal of his childhood ambition. To him philosophy was not circumscribed by the limitations usually placed upon it by university professors. Philosophy embraced all knowledge, conforming to Francis Bacon's comprehensive classification of human knowledge into history, philosophy, and poetry. In 1915 he retired from active teaching, although in the full flush of his powers, and accepted the title of Professor Emeritus of Philosophy, with a retiring allowance of \$2,400 a year. This relief from teaching gave him opportunity to push forward literary undertakings.

## CONTRIBUTIONS

*Natural Science*

Dr. Smith was a versatile scholar with wide and varied interests. The whole circle of human knowledge came within his purview. He was an acknowledged master in at least four distinct fields of learning: natural sciences, philosophy, classical literature, and Biblical research and constructive criticism.

His early field of activity was mathematics and physics. He pursued these subjects in the academy while he was a mere boy. He taught natural science in the University of Kentucky and his major study in the University of Goettingen was in this field. His doctor's thesis was entitled *Zur Molecular-kinematik*. His teaching in Central College, in the University of Missouri, and in Tulane was in this field. His investigations and teaching of mathematics and physics resulted in several books and magazine articles, of which the most important were: *Elementary Co-ordinate Geometry*, 1886; *Co-ordinate Geometry*, 1888, listed in Sonnenschein's *Best Books*, which with one exception was considered the finest handling of the subject in the English language; *A Clew to Trigonometry* 1891; *An Introductory Modern Geometry of Point, Line and Circle*, 1892; and *Infinitesimal Calculus* volume I, 1898. The editors of Webster's *International Dictionary* secured Dr. Smith to write the definitions of mathematical terms for their book.

The fourteenth edition of the *Encyclopaedia Britannica* contains Dr. Smith's definitions of such mathematical terms as "Complex numbers," "Cone," "Conic Sections," "Coordinates," "Cylinder," "Ellipse," "Hyperbola," and "Parabola". The *Encyclopaedia Americana* contains an article of 100,000 words on the "Calculus" contributed by Dr. Smith. Dr. Smith's other recorded contributions in this field numbered 22; some in manuscript. He considered the article "Method and Aim in Mathematical Physics" published in the *Methodist Quarterly* of great importance because he forecast in it a portion of the doctrine so brilliantly expanded by Hans Vaihinger in his *Die Philosophie des Als Ob*.

*New Testament History and Criticism*

The second field in which Dr. Smith was master was the field of New Testament history and textual criticism. At the age of fifteen he gave a lecture in the Methodist Church of St. Joseph, of which he was a member, on "The True Sense in which is to be Understood the Necessity of Creation." For twenty years after his break with the church and his resignation from the Faculty of the University of Kentucky, he wrote very little on the controversial subjects in religion. He contributed in 1887-1888 a few articles on the resurrection of Jesus and on the Pauline Doctrine for the *Unitarian Review* under the pen name of "Conrad Mascol," but he continued an intensive study of the Epistles of St. Paul.

The conclusion of his study on "Curves of Pauline and Pseudo-Pauline Style" was that the Epistles to the Philippians, the Ephesians, and the Colossians could not have been written by the author of the Epistles to the Galatians to the Corinthians, and to the Romans. From his exhaustive study of the "Pauline Manuscript F and G of the Epistle to the Romans" he concluded that F cannot be a copy of G and that both were copied from an older manuscript. These findings in New Testament criticism were confirmed by Dr. Caspar René Gregory in his gigantic work on the New Testament. His conclusions on the study of the Epistle to the Romans were expressed in his article "Origin and Destination of the Epistle to the Romans", published in the *Journal of Biblical Literature*. His findings were accepted by Adolf Harnack, the distinguished German biblical scholar and writer, and they elicited the favorable criticism of T. K. Cheyne, the eminent English Bible critic; of Van Mannen, editor of the *Encyclopaedia Biblica*; and of L. P. Jacks, editor of the *Hibbert Journal*. These men urged Dr. Smith to elaborate his ideas, which he did in several magazine articles.

In 1903, Dr. Smith purchased a copy of *Lyon's Assyrian Manual* which he found in a second hand book store in Chicago. He studied this carefully while acting as nurse to his son Kenley. In reading the long chrestomathy at the end of the book he repeatedly met with the stem n-ç-r always in the sense of 'keep, protect, guard and defend.' It was extremely like na-z-ar-eth. After comparing the Hebrew cognates, he was convinced that *nazaraïos* was derived from n-ç-r and was the name of a deity, and that *Jesus Nazaraïos* was parallel with Zeus Soter, Yahveh Sabaoth and a host of other deities. This to his mind gave a solution of the problem of primitive Christianity. In Hippolytus he found an older form of the "Parable of the Sower" which "called imperiously for interpretation as a parable of creation." Then he wrote an essay on "Pre-Christian Christianity" and sent it to Dr. Otto Pfeiderer of Berlin for examination. Dr. Pfeiderer insisted that the work be published in book form. It was published in 1906, by A. Topelman, as *Der Vorchristliche Jesus*; a second edition appeared in English in the United States in 1911. The book caused much criticism among German critics. Dr. Arthur Drews popularized the work about four years later when he published his *Der Christus mythe*, which contained numerous quotations from Dr. Smith's work. Several articles and books appeared for and against Dr. Smith's thesis. Finally, Dr. Eugen Diedrich asked Dr. Smith to write another book to clarify and amplify his thesis in *Der Vorchristliche Jesus*. His answer was *Ecce Deus: Die Urchristliche Lehre des Reingottlichen Jesu*, 1911, translated and published in English in London in 1912. "The essence of *Ecce Deus*", wrote Dr. Smith, "is symbolic interpretation of the Gospel . . . which carries with it as an inevitable consequence, the unhistorical character of the whole Gospel story as a biography . . . and is the interpretation of the whole proto-Christian movement as a crusade for monotheism, a protest against idolatry." In an article, "The Everlasting

Gospel," the author tried to show the "indisputable and unequivocally essential character of the great missionary movement in the diaspora." He wrote more than 80 articles and books on theology, New Testament criticism, the origin of Christianity, and other religious subjects, many of which were never offered for publication. There were four elaborate memoirs; "The Witness of Hermes," "The Witness of the Teaching," "The Interpolated Proof-Texts," and "The Original Meaning and Reference to the Crucifixion." These contributions were to form chapters in his great work *Transfigured—Crucified—Enthroned: A study of the Folk Mind of Israel as a Matrix of Christianity*, but the work was never finished.

Many years later (1932) in an article: "Milk or Meat?" (*Hibbert Journal* v. 31, p. 372) Dr. Smith expressed the results of his research in this field. Briefly they were: The Christ of the New Testament is the righteous servant of Jehovah, the Hebrew race, the people of Israel; the son of Man was the people of Israel, generally impersonated, also the chosen people; again, the hero of this old old story usually the people of Israel, was idealized, spiritualized and personalized.

In an article in the *Monist* in 1923 on "Christmas? or Epiphany?" he wrote: "In the feast of Epiphany he beheld the earlier and quasignostic view of the spiritual Jesus, the Savior-God who had appeared on earth to redeem man from the sin of idolatry, a conception that gradually retired before the later conception of a divine man, physically born, physically living, physically suffering and physically dying for the sins of the world."

#### *Classical Literature*

Dr. Smith was nurtured on the Classics. He read them as a boy. His love for them never ceased and in later years he became a distinguished classical scholar. After his retirement from Tulane University he began a very ambitious project: A Homometrical translation of the *Iliad* of Homer, line by line, in rhythm, measure and cadence, as faithful to the original as the genius of the English language would permit. After several years of constant strenuous labor, he completed the work. It was accepted by the Macmillan Company for publication, but he withdrew it so that he might make the translation more nearly perfect. Life was too short for the completion of this great work. It was left for his friend and noted classical scholar, Dr. Walter Miller of the University of Missouri, for completion and publication.

William Benjamin Smith possessed a lively imagination, tender emotion, love and appreciation of the beautiful everywhere. He often expressed himself in rhyme. He wrote the "Merman and the Seraph," which received the *Poet-Lore* prize, and "Love and Lore," a poem which received a prize among more than two hundred competitors. His translation into English verse of "Dies Irae," "Stabat Mater," and the "Drunken Song" in Nietzsche's *Thus Spake Zarathustra* were widely published and received very favorable approval from Catholics and Protestants.

### *Philosophy*

During several years Dr. Smith had been developing certain philosophical views which he hoped to bring together and coordinate in a work to be entitled *Mind the Maker*. He addressed the Phi Beta Kappa of the University of Virginia, in 1913, on "Push or Pull," in which he contrasted the two views of the nature process: the one regarding it as a thrust of a transcendent power from without; the other as the urge of an immanent power from within. In 1918 he addressed the Phi Beta Kappa of Tulane University on "Mors Mortis" in which he emphasized the evolution of the "Communal consciousness divine as the goal of the universal nature-process as slowly revealing itself in history." The next year he wrote "Relativity and its philosophical implication." A result of this study was his "Metastereoscopy-Mass as Measure of space-curvature." There were many other contributions to be made a part of this master work of which the latest manuscript was an essay entitled "Recent Physics and World Theory." The major part of this essay containing his theory of *Reality and the World* was published in a booklet *Mind, the Maker*, edited by Dr. C. J. Keyser and published by *Scripta Mathematica*. This brochure must not be confused with his great work *Mind, the Maker* on which he concentrated in his later years but which he never completed.

### *Other Fields of Learning*

His major work was in the fields of classics, philosophy, New Testament research and criticism, and origin of Christianity, but he won distinction in other fields. In the social sciences he wrote not less than forty articles and books, including several biographical sketches, such as the ones on "James S. Rollins, the Father of the University of Missouri", "James K. Patterson, President of the University of Kentucky." He wrote on old age pensions, the race question, government ownership of public utilities, the gold standard, and the tariff. His work on the World War covered 400 pages. *An Inquiry into the Origin and Some Probable Issues of the European War*, 1914 was accepted for publication by Putnam and Sons, and was according to their judgment the best that had been written up to that time on the World War. However, Dr. Smith withdrew the manuscript as new revelations of facts were constantly antiquating earlier statements. It was never published.

His sketch of "James K. Patterson, President of the University of Kentucky" was unusually brilliant. It was an appreciation of his intimate friend, a teacher, an administrator, a man of learning, of poise and dignity; one of the two men on the Faculty of the University of Kentucky who remained loyal to Dr. Smith after his great apostasy. Dr. Patterson devoted his great talents for forty years to the building of the University of Kentucky. The author's splendid diction, the rhythm of his sentences, the sweep of his paragraphs would indicate that he might have been associated with the famous Homer on the windy plains of Troy. The sketch is a literary classic conceived and modeled in the Grecian spirit of beauty.

## LATER LIFE

Dr. Smith was honored with the Doctor of Laws degree by the University of Missouri. President Theodore Roosevelt selected him as one of the American representatives to the Pan-American Scientific Congress, Santiago, Chile, in 1906. He enjoyed the distinction of having his biographical sketch in *Who's Who* as well as in *Who's Who in America* and in the *National Cyclopaedia of American Biography*. Dr. Smith was a fellow of the American Association for the Advancement of Science and the first president of the New Orleans Academy of Science. He was a member of the American Mathematical Society, the Circolo Matematico di Palermo, and the Kantgesellschaft of Berlin.

William Benjamin Smith was a man of great personal charm; gentlemanly, courteous, unselfish; a man who could discourse on abstract science with a college professor or carry on an interesting conversation with the lowliest citizen. He inherited a strong vigorous physique and during his long life was seldom ill. In 1882, he married Miss Kathleen Merrill of Fayette, Missouri. She was an unusually talented woman, a teacher of vocal music in Howard Payne College. Later she sang in grand opera in St. Louis, Missouri. After seventeen years of married life she died of pulmonary tuberculosis in 1899. His eldest son, Neville Merrill Smith, a prominent physician of Fayette, Missouri, did not survive an appendectomy in the Jewish Hospital in St. Louis. Three children survived their father; Kenley, Katharyn, (Mrs. John Dos Passos), and William Benjamin Smith, Jr.

In his later years, William Benjamin Smith enjoyed a home life such as he had not known since his family scattered after the death of his wife. He had been very fortunate in selecting a room at the home of Mr. and Mrs. Curtis R. Everman, Columbia, Missouri. This family loved Dr. Smith not because he was a lonely man, but because of his gentleness, his courtesy, his generosity and his scholarship. Their hearts and their home were open to him. In return he loved and respected them and made many contributions to the congeniality and happiness of their home. This incipient friendship grew richer and deeper in sympathy and understanding during the eleven years which he lived in the Everman home. After the death of Mr. Everman in 1932, Dr. Smith was very solicitous for his future as he had hoped that the Evermans would care for him as long as he lived. He was very happy when he learned that he could keep his room, as Mrs. Everman would continue to keep some of the rooms in her home rented. Mr. and Mrs. M. J. Bryan, cousins of Mrs. Everman, came to live in the home. A deep love and understanding developed between Dr. Smith and the Bryans. When he was transferred to the Boone County Hospital he begged these three friends not to leave him, so he enjoyed their faithful ministrations to the last as had been his request.

The pleasant home relations had left Dr. Smith free to study and to write. Certain hours of the day were regularly devoted to writing and research; other



hours to recreation and sleep. His ambition had been to bring the three major projects—the translation of the *Iliad*, *Mind the Maker*, and *Transfigured, Crucified, Enthroned*—to completion, but an infected tooth and the extremely dry hot weather in the summer of 1934 over-taxed his well-worn physical body.

Dr. Smith had always grieved over the death of those dear to him, and while he appeared to take death as a matter of fact that comes to everyone he did not discuss his own approach to death and his future life. He was so engrossed in his work and so intent upon the completion of his projects that he seemed to dislike to think of the time for his own passing and he hoped that death would be delayed in summoning him.

After a brief illness in the Everman home Dr. Smith was taken to the Boone County Hospital. His children, Katharyn and Kenley, soon arrived. This great scholar's eyes soon grew very weary and stared upon the upper corner of the room, then came his last words in a very low murmur "Rappings—Rappings—the angels." The portals of the other world slowly unfolded and Dr. William Benjamin Smith entered in, on August 6, 1934. The mortal remains of this great man were laid to rest beside his devoted wife in the cemetery in Louisiana, Missouri.

Dr. Cassius J. Keyser in his sketch of William Benjamin Smith concluded with this estimate: "Of William Benjamin Smith it may, I think, be said without extravagance, that our country has had no greater scholar, no profounder or more productive investigator, no more versatile genius, and none more completely devoted to the higher interests of the human spirit."



## Bibliography of William Benjamin Smith

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## BOOKS

- A Clew to Trigonometry*, Rolla, Missouri, 1891.  
*The Color Line, a Brief in Behalf of the Unborn*, New York, Phillips, 1905.  
 ----- Edition 2, Doubleday, 1905.  
*Coordinate Geometry*, Boston, Ginn & Co., 1888. (Sonnenschein's Best Books) (Recommended for graduate work in Clark and in Columbia Universities).  
*Ecce Deus, die Urchristliche Lehre des Reingottlichen Jesu*, Jena, Dietrich, 1911.  
*Ecce Deus, Studies of Primitive Christianity*, London, Watts & Co., 1912.  
 ----- Chicago, Open Court Pub. Co., 1913.  
*Elementary Co-ordinate Geometry for Collegiate Use and Private Study*. Boston, Ginn & Co., 1886.  
*Infinitesimal Analysis*, vol. 1, *Elementary Real Variables*, New York, Macmillan, 1898. (Designed for three volume work. Volumes 2 and 3 never published).  
*Introductory Modern Geometry of Point, Line, and Circle*, part 1, New York & London, Macmillan, 1892.  
 ----- Revised edition. 1893.  
*James Kennedy Patterson, an appreciation*. (In Kentucky State University Commemorative Exercises of the Fortieth Anniversary of the Presidency of James K. Patterson, June 1, 1909, pp. 83-130.)  
*James Sidney Rollins, a memoir*, New York, printed by the De Vinne Press, 1891.  
*A Plea for Higher Education*, 24 pp. New Orleans, La., Graham & Son, 1896. (an address before the Graduate Club, Tulane University).  
*Tariff for Protection*. 1888. (address before the Law School, University of Missouri) 52 pp. Published by the National Executive Committee of the Democratic Party.  
*Tariff Reform*. 55 pp., Columbia, Mo., Statesman Book and Job Office Printing Co., 1890. (Approved by President Cleveland. Used by the Democratic Party as campaign material).  
*Der Vorchristliche Jesus*, Giessen, Topelman, 1906.  
*Der Vorchristliche Jesus*, 2 aufl. mit vorwort von Paul W. Schmiedel, Jena, Dietrich, 1911.  
*Zur Molecular-Kinematik*, Goettingen, Hofer, 1879. (Inaugural dissertation).

## ARTICLES

Published in Encyclopaedias, Magazines, and Newspapers.

- "Address and Destination of St. Paul's Epistle to the Romans," *Journal of Biblical Literature* 20:1-21, 1901.  
 "Are Motions Emotions?", *Tulane Graduates' Magazine*, 16 pp., January 1914.  
 "As You Like It", New Orleans, *Times Democrat*, 1893<sup>2</sup> (discussion of the play before the Shakespearian Club, New Orleans, La.).  
 "A Balaam Among the Historicists", *Open Court* 27:383, 1913.  
 "Calculus", 100,000 words in *Encyclopaedia Americana*, v. 5, 1932.  
 "Character Teaching and Napoleon Bonaparte", *Educational Review* 74: 172, 1927.  
 "Christianity: Is it dogma or life? 1. Dogma," *Outlook* 66: 686 (Pen name Clericus).  
 "Christmas? or Epiphany?" *Open Court* 39:705, 1923.  
 "Comment on Josephus and Tacitus", *Monist* 21:119-124, 1911.  
 "The Critical Trilemma", *Monist* 24:411-34, 1914.  
 "A Criticism and Protest" (A reply to an article written by President Gilman of Johns Hopkins on "Objects of a College Education") Tulane University, *Olive and Blue*, p. 5, 1912?  
 "The Culture Value of Higher Mathematics", *Educational Outlook* 2: 261-272, 1905.  
 ----- N. E. A. *Proceedings*, 178-191, 1898. (An address before the National Educational Association Conference, 1897).

- "Curves of Pauline and of Pseudo-Pauline Style", Conrad Mascot, pseud., *Unitarian Review* 30:452, 539, 1888.
- "Defenses of the Gold Standard", *Chicago Record*, 1896. (Series of six long articles in *Chicago Record* answering Governor J. P. Altgeld's famous auditorium speech). (Michigan writers said they placed Dr. Smith in front line of economists along with Adam Smith and David Ricardo. The gold Democrats invited him to "take the stump" in the Bryan campaign, 1896).
- A long article on the same subject was published in *The Times Democrat*, New Orleans.
- "Did Paul Write Romans?", *Hibbert Journal* 1:795-7, 1903.
- "Dies Irae" (a translation), *The Times Democrat*. April 3, 1898. Repeatedly published. (Much praised by Catholics).
- "Discussion of Christ's First Work on The Cross", *Open Court* 26: 178-81; 247-50, 1912.
- "Dreams As Interpretations vs. Interpretations of Dreams". (Read at the American Association for the Advancement of Science, Conference, Atlanta, 1898) 16 pp. Published, but place unknown.
- "The Drunken Song" (a translation) *Poet Lore* 16:c 5. (poem in Nietzsche's "Thus Spake Zarathustra").
- "The Duty of the Hour" *Argus* 8:14-18, 1890.
- "E(dgar) H(oward) Farrar" (1840-1922), *University of Virginia Bulletin*, October 1923, pp. 380-394.
- "Education of the Emotion", *Educational Review* 72:88, 1926.
- "Electronic Theory of Matter", *Monist* 27:321-51, 1917.
- Encyclopaedia Americana*, 1920. Articles on the following subjects:
- v. 3 The Bible; Bible—History of Old Testament Interpretation; Bible—History of New Testament Interpretation; Bible—Versions; Biblical Archaeology—Old Testament; Biblical Archaeology—New Testament
  - v. 5 Calculus, the infinitesimal.
- Encyclopaedia Britannica*, 14th edition, 1929. Articles on the following mathematical terms:
- v. 6 Complex numbers; Cone; Conic sections; Coordinates; Cylinder.
  - v. 8 Ellipse.
  - v. 12 Hyperbola; Hyperboloid.
  - v. 17 Parabola; Paraboloid.
- "Harnack versus Harnack", *The New World* 7:648-662, 1898.
- "Henri Poincare: an appreciation", *Monist* 22: 615-617, 1912.
- "Hereditry: Light thrown upon the enigma that has puzzled biologists", *The Republic*? October 8, 1889.
- "Humanity of Jesus", *Open Court* 26:416-26, 1912 (This article contests a protest).
- "Imaginaires on Geometry" 1890, a memoir on imaginary curves. Published, place unknown.
- "Impressions of Normandy and The Capital of France", New Orleans, *The Times Democrat*, November 25, 1906.
- "Indictment and a Challenge", *Educational Review* 69:169, 1925.
- "In memoriam: John Henry Neville", 1908. Published, place unknown.
- "In memoriam: Dr. Robert Peter", *Letters* 1:34-40, 1928.
- "Jesus and The Baptist", *Open Court* 28:38-45, 1914.
- "The Jewish Element in Galilee", *Open Court* 23:748-62, 1909. (comment on Prof. Paul Haupt's article: "The Aryan Ancestry of Jesus").
- "Judas Iscariot", *Hibbert Journal* 9:529-44, 1911.
- "Kant's Transcendental Aesthetic in the Light of Modern Mathematics", *Hibbert Journal* 7:890-910, 1909.
- "Keep the Hell Fires Burning", *Educational Review* 76:176, 1928.
- "Kindred of Jesus and the Babylon of Revelation", *Open Court* 26: 744-58, 1912.
- "Latest Lights and Shadows on the Jesus Question", *Monist* 24: 618-34, 1914.
- "Less Pessimism, Please", *Educational Review* 71: 241, 1926.
- "Letter to M. Rumjantzo, July 11, 1925, Moscow, place unknown. (Rumjantzo and other Russian editors and publishers wrote to the author repeatedly and urgently, offering high prices for anything he would write for them but he excused himself, not wishing to be identified with the Soviet movement then).
- "Lexington" (Kentucky) 1775-1925. Published, place unknown.
- "Life and Its Meaning", *The Literary Guide*, November 1922, p. 169.
- "Mathematical Definitions", Webster's *New International Dictionary*, 1906.
- "Meaning of the Epithet Nazorean (Nazarene)" *Monist* 15: 25-45, 1905.
- "The Merman and the Seraph" (a poem), *Poet Lore* v. 17, no. 3; 5-7, 1906.

- New Orleans, *The Times Democrat*, March 17, 1907.
- "Method and Aim in Mathematical Physics", *Methodist Quarterly* 1884? (an address given at Central College, Fayette, Missouri).
- "Milk or Meat?", *Hibbert Journal* v. 31, no. 3:372, 1933.
- "Mills of Gods" (translation of Ancient Greek), 3 pp., 1931. Published, place unknown.
- "Mind and Body", *Hibbert Journal* 29: 425, 1931.
- "Mind the Maker," the world theory presented by Cassius Jackson Keyser, *Scripta Mathematica*, N. Y. (1935).
- "Mors Mortis (Death of Death) *Monist* 28: 321-51, 1918. (Probably the author's most popular article).
- "Mystic Number Nine", *Open Court* 23: 380-2, 1909.
- "The Nazarenes, Pre-Christian, a voice from Scandinavia", *Open Court* 27:559-561, 1913.
- "Newer Testament", *Hibbert Journal* 23: 588, 1925.
- "Not Ten but Twelve", *Science* n. s. 50: 239, 1919.
- "Note on Bousset, Deussen, Garbe, et al", *Open Court* 28: 546-8, 1914.
- "Nuevas Teorias de los fenomenos fisicos", 1° Pan-Americano Cientifico Congreso. *Traabajos*, vol. 5, 1908-09. (an address given Dec. 26, 1908, Pan-American Scientific Congress, Santiago, Chile).
- "Nuptials in High Life", *Monist* 33: 618-634, 1923.
- "Origin and destination of the Epistle to the Romans", *Journal of Biblical Literature* (later than 1893).
- "The Origin and Significance of Disease", 25 pp. Published, place unknown. (an address—Annual Commencement of the Medical Dept., Tulane University, April 14, 1897. This address was much praised by the Medical Faculty).
- "Our Material Age", *Educational Review* 71: 20, 1926.
- "The Pauline Manuscripts F and G, a textual study", *American Journal of Theology* 7: 452-55; 662-688, 1903. (In his giant work *Text kritik des Neuen Testaments*, III, 1041, C. R. Gregory, Univ. of Leipzig, says: "William Benjamin Smith demonstrates that the manuscript F can not be a copy of G, but that both F and G were copied from a manuscript now unknown". This essay was regarded in Germany as of unique importance).
- "Physics as part of a Liberal Education". Published, place unknown. (Inaugural address as Professor of Physics in Central College, Fayette, Mo., January 13, 1886).
- "Power By Which We Live", *Educational Review* 69: 127, 1925.
- "Pre-Christian Jesus", *American Journal Theology* 15: 259-65, 1911.
- "President E. A. Alderman", *University of Virginia Bulletin*, 1905?
- "Professor Loofs on What Is the Truth About Jesus?", *Open Court* 27: 689-701, 1913.
- "Psychology sans Psyche", *Psyche* 8: 59-71, 1927.
- "The Tale of Israel Told Anew", *The Non-Sectarian* 4:143-157; 215-231, 1894.
- "Push? or Pull?", *Monist* 23: 14-41, 1913. (Phi Beta Kappa address, University of Virginia).
- "Real Question of the Ancestry of Jesus", *Open Court* 24: 12-25, 1910. (Further comment upon Prof. Haupt's article: "The Aryan Ancestry of Jesus").
- "Relativity and Its Philosophic Implications", *Monist* 31: 481-511, 1921. (Address delivered at the New Orleans meeting of the Southern Society of Philosophy and Psychology. April 1920.)
- "Reply to Professor Lovejoy on Der Vorchristliche Jesus", *Monist* 19: 409-20, 1909.
- "Reclaiming Sahara", *New York?*, June 22, 1929.
- "Report of the Board of Visitors to the University of Missouri, 1888-89."
- "Report on Section 2: Physics and Chemical Sciences", *First Pan-American Scientific Congress* 1908-09, Santiago, Chile. Appendix F, Report of Delegates, pp. 26-29, Wash., D. C., Government Printing Office, 1909.
- "Sacculi Silentium" (in German), published in his *Der Vorchristliche Jesus*, pp. 135-224 (considered quite extraordinarily valuable.)
- "Saint Ignatius vs. the Historicists", *Open Court* 27: 351-63, 1913.
- "St. Paul's Doctrine of Inspiration", Conrad Mascol, pseud., *Unitarian Review* 28: 189-203 1887.
- "St. Paul's Doctrine of the Risen Christ", Conrad Mascol, pseud., *Unitarian Review* 27: 515-529, 1887.
- "St. Paul's Doctrine of Salvation", Conrad Mascol, pseud., *Unitarian Review* 29: 97-114, 1888.
- "Science—Philosophy—Religion", *Unitarian Review* 28:314-331, 1887.
- "Silence of Josephus and Tacitus", *Monist* 20: 515-50, 1910.

- "Some Commercial Fallacies Exposed", *St. Louis Republic?* (an interesting article on Free Trade).
- "The Scripture Idea of Salvation", Conrad Mascol, pseud., *Unitarian Review* 29: 1-11, 1888
- "Spirit of Carl Holsten", Conrad Mascol, pseud., *Unitarian Review?*
- "Status and Drift of New Testament Criticism," *Encyclopaedia Americana*.
- "Switzerland", *New Orleans Picayune*, 1907. (written in Europe after trip in Switzerland). Stabat Mater. Translation. *Argus* 10: 13, 1892.
- "The Tale of Israel Told Anew", *Non-Sectarian*, March 1893?, pp. 143-231.
- "Tell The Whole Truth" (and several other articles on economic subjects) *The New Northwest?*, (Montana) 1920.
- "Theory of the Pre-Christian Jesus", *Open Court* 24: 632-5, 1910.
- "Transfiguration", *Literary Guide*, London, July 1933.
- "The True Sense in Which is to be Understood the Necessity of Creation," St. Joseph, Missouri, daily paper?, 1865. (a lecture in the Methodist Church at the age of 15).
- "Twelve vs. Ten", *Educational Review* 2: 347, 1891.
- "Unto Romans, XV and XVI", *Journal of Biblical Literature* 20: 129-157; 21: 117-169, 1902.
- "War, Diplomacy, Business, plain talks to Teutons" (this paper and other papers on similar subjects were published during the World War by eastern journals. Some were reprinted and posted in the War camps in France).
- "War, Draft the Rich", *Columbia Daily Tribune?*, 1917?
- "We must Take Higher Ground", *Educational Review* 68: 187, 1924.
- "What a Layman Wants in the Teaching of History and Literature", *Educational Review* 73: 144, 1927.
- "What the Sin? Who the Sinner?", *Literary Guide*, London, October 21, 1929.
- "What's Being Told to our Children?", *Educational Review* 75: 207, 1928.
- "What Remaineth?", *Monist* 29: 1-31, 1919.
- "Wiener's Criticism of Keyser" Published, place unknown.

## BOOK REVIEWS BY DR. SMITH

- Bacon, Benjamin W., "Christianity Old and New", *Open Court* 28: 68-96, 1914.
- Barzellath, Giacomo, "Monte Amiata e il suo profeta 1910-.", published, place unknown.
- Case, Shirley Jackson, "Historicity of Jesus", *Open Court* 26: 604-18, 1912.
- Drew, Arthur, "Die Christus mythe" Vol. II—"The Witness to the Historicity of Jesus", *Open Court* 26: 372-377, 1912.
- Furness, Wm. H., "The Story of the Resurrection of Christ Told Once More", Conrad Mascol, pseud., *Unitarian Review* 27: 118-131, 1887.
- Jean James, "The Universe Around Us", *New York*, Feb. 15, 1930.
- Keyser, Cassius J., "Mathematical Philosophy", *New York?*, 1922.
- Keyser, Cassius J., "Pastures of Wonder", *New York?*, 1929.
- Kunen, "Godsdenst van Israel," *Non-Sectarian Monthly?*
- "A New Philosopher" (review of Hans Vaihinger's "Wie die Philosophie des Als Ob Entstand"), *Literary Review of the New York Times*, July 9, 1921. (2,500 words).
- Pfeiderer, Otto, "Christian Origins", in *Noteworthy Estimates of Two Important Books*, B. W. Huebscher, pp. 7-12.
- Pick, Bernard, "The Apocryphal Acts of Paul, Peter, John, Andrew, and Thomas", *Journal of Philosophy* 8: 415-17, 1911.
- "Polyxena Christiana" (review of Bousset's "Kyros Christos"), *Monist* 26: 1-31, 1919.
- "Splenger's Theory of the Historical Process" (review of Oswald Splengler's "Der Untergang des Abendlandes"), *Monist* 32: 609-628, 1922.
- "Theoretical Basis of Human Behavior" (review of Albert Paul Weiss' work), published in a psychological journal, name and place unknown.
- Thomas, J. C., "Life, Mind and Knowledge or the Circuit of Sentient Existence", *Literary Guide*, London, November 1922.

## MANUSCRIPTS

- "Andromeda", a poem written in student days.
- "Al Puerte del Ynca", 1 p. (a poem written at the request of Delegates to the First Pan-American Scientific Congress, 1908-09).
- "Anglo-American Relations", 1898, 15 pp.
- "Autobiography", 46 pp.
- "Babylon—The Enchantress", 60 pp., 1930. (an address before the Discussion Club, Columbia, Missouri).
- "Behaviorism: Any Meaning?", 32 pp., 1928. (an address before the Discussion Club, Columbia, Missouri).
- "Big Business: Boon? or Bane?", 10 pp.

- "Briton and Teuton Compared" (addressed to the editor of the New York Times) 6 p.  
 "The Call to The Just", 10 pp., 1932. (a review of *Epic of America* by James Truslow Adams).  
 "Cases of Construction (on McDougal) 24 pp.  
 "Christian Science as Cosmic Theory", 11 pp., Dec. 27, 1930. (letter to Professor H. Rubey).  
 "Conclusions in Syllogisms Both Premises Negative", 13 pp., May 18, 1913.  
 "Co-operation—Trade Unionism" (economic discussion).  
 "Cosmography or Metaphysics" (an address).  
 "Demoniac of Gerasa", 11 pp. (an important work).  
 "Dreams and Dreamland", 36 pp.  
 "Dreams and the Nature of Reality", 19 pp.  
 "Dreams as Retrostructive Interpretations", 22 pp.  
 "Epilog to Mind Makes Matter". 4 pages.  
 "Eternal Life", 74 pp.  
 "Ethics", 49 pp.  
 "Europe Revisted" (never completed).  
 "The Exponential Development of Real Exponents".  
 "The Everlasting Gospel".  
 "Evolution Alone Human and Divine", 9 pp.  
 "Ezekiel's Vision of a Wheel Within a Wheel", 4 pp. and chart.  
 "Functions of a Complex Variable", 188 pp.  
 "Galatians", 196 pp.  
 "Germany's Answer", 7 pp.  
 "Gnostic Quotations in the New Testament".  
 "Goguel's Jesus de Nazareth", (a review). 269 pp.  
 "The Great Refusal", 1902. 4 pp.  
 "The Greek Spirit and What We Owe to It", 38 pp. (an address).  
 "Heart to Heart With Voter", 30 pp., 1928.  
 "Heredity" (an address).  
 Homer's Iliad, line for line homometric translation.  
 "An inquiry into the Origins and Some Probable Issues of the European War", 1914. (a large manuscript, was submitted to G. P. Putnam & Sons, New York City and accepted as in their judgment the best up to that time written; but was withdrawn, as constant new revelations of facts were constantly antiquating earlier pronouncements). 351 pp.  
 "In the Valley Again", 7 pp., 1931.  
 "Italy", 29 pp.  
 "Interpolated Proof-Texts".  
 "James Kennedy Patterson, a memoir", 237 pp.  
 "John Locke" (a lecture).  
 "Knowledge", 190 pp.  
 "A Life or a Dogma". 1900.  
 "Mass and Mind", 20 pp., 1929.  
 "Materialism", 39 pp.  
 "Metastereoscopy: Mass As Measure of Space-Curvature", 18 pp., 1922. (A very important paper, submitted to various high authorities in Columbia University, also submitted to H. Vaihinger of Halle University, Germany, highly approved and recommended to be published, but was never offered to be published anywhere, withheld in hope of enlarging the mathematical discussion).  
 "Nature and Necessity of Philosophy", 22 pp.  
 "Nature of Reality", 19 pp.  
 "New Patch on Old Garment" (review of Formgeschichte Methode), 92 pp.  
 "New Patch? or New Garment?" (review of Klausner), 90 pp., 1926.  
 "Number", 101 pp.  
 "Old Age Pensions", 3 pp., 1930. (a letter to Representative Wm. I. Svrovich).  
 "Originals, Drafts (on Philo, Baruch, Sibyl).  
 "An Opportunity and a Suggestion" (an address) (1911). 15 pp.  
 "Origin, Meaning, and Reference of the Crucifixion".  
 "Original Sense of Crucifixion", 27 pp.  
 "Origins of Christianity", 132 pp.  
 "Pavlov on Conditioned Reflexes", 38 pp., 1930.  
 "Peace! Peace! When There is No Peace", 1917. (A reply to Dr. Charles W. Eliot).  
 "Philosophy", 109 pp.  
 "A Plea for the Individual". (an address) 18 pp.  
 "Power With Responsibility".

- "Public Service? or Private Profit?" (delivered before the New Orleans Round Table Club, and the Southern Society of Economists). (An argument for municipal ownership of public utilities).
- "Race-Decay: The Dry Rot in Civilization", 31 pp., 1909. (An address delivered in New Orleans, also presented (not read) to The First Pan-American Scientific Congress, Santiago, Chile).
- "Recent Physics and World Theory" (to be published in *Scripta Mathematica*).
- "Religious Triangle", 136 pp., 1931.
- "Relativity and its Philosophical Implications". 29 pp.
- "The Science of Mathematics".
- "The Secret of Christianity".
- "Seen, Occasional—Unseen Eternal". 1927. 12 pp.
- "Socrates", 25 pp. (an address).
- "Southern Literature" (an address).
- "Stranded" (a jocular paper).
- "Switzerland and Italy", 38 pp.
- "Trigonometry", 101 pp.
- "Through Nature to God," 56 pp. (a review of Titius' "Naturund Gott").
- "Unto The Romans", 426 pp.
- "What is Experience?", 45 pp.
- "Witness of the Spirit".
- "Witness of the Teaching".
- "Woman Suffrage", 29 pp.
- "The World is my idea", 14 pp.

*Mind, the Maker* was planned to include the following:

- "Cases of Construction", 24 pp.; "Epilog to Mind Makes Matter", 4 pp.; "Meta-stereoscopy", 18 pp.; "Mind is Maker; Matter is Made", 6 pp., 1930; "Nature and Necessity of Philosophy", "New Realism", 122 pp., 1924; "The Realism of B. Russell", 31 pp.; "Seen, Occasional—Unseen, Eternal", 12 pp., 1927; "Space is Everything—Except Reality", 9 pp., 1930; "The World is My Idea"; "World-making", 34 pp., 1927.

*Transfigured—Crucified—Enthroned: A Study of the Folk-mind of Israel as Matrix of Christianity* was planned to include the following:

- "The Eternal Gospel To-day and To-morrow"; "Fourth Eclogue of Vergil—Translation; "Hermas vs. Historicists"; "Interpolated Proof-texts", 1913; "Light in the East" (review of Loofs), 6 pp., 1927; "Numeric Symbolism in the Fourth Gospel", 34 pp.; "Originals, Drafts (on Philo, Baruch, Sibyl; Notes in Nils Messel)" "Origins of Christianity"; "Teaching of the Teaching", 37 pp., 1913.

#### WRITINGS ABOUT DR. WILLIAM BENJAMIN SMITH

*The Argus* (University of Missouri publication)

Sketch of Dr. Smith, 7: 141.

Review of Memoir on Rollins, 10: 6.

Resignation from the University of Missouri 13 no. 1:3, 40.

Borinski, Karl, "Extracts from a review of *Der Vorchristliche Jesus* *Monist* 18: 587-597.

Borinski, Karl, "Smith's Biblical Criticism", *Monist* 21: 307, 1911.

Campbell, W. A., *William Benjamin Smith*, a tribute. (Brochure of six pages privately printed).

Cheyne, T. K., "Review of *Ecce Deus*" in *Hibbert Journal*, July 1913, p. 917.

*Columbia Missourian*, June 30, 1931. (an article about the University of Missouri conferring the LL.D. degree upon Dr. William Benjamin Smith. Photo and sketch).

Conybeare, F. C., "The Historical Christ or Investigation of the Views of J. M. Robertson, A. Drews, and W. B. Smith", *Open Court* 29: 163-189, Mr. 1915.

*Criticism Criticized, Judgments of Scholarship upon Der Vorchristliche Jesus, and Ecce Deus*, 1906-1915. Privately printed.

Dodd, Helen Wells, "William Benjamin Smith as a Critic", *St. Louis Post Dispatch*, Feb. 27, 1935, p. 2c.

Drews, A. C. H. *Die Christus Mythe*.

Gammell, John. "The New Testament problems solved or Professor W. B. Smith on The Pre-Christian Jesus" (an address. Wellington, New Zealand, 1907).

Gregory, C. R. "Textkritik des neuen Testaments", III: 1041.

Joeckel, Alfred. "Satire and Gegenwart" in *Die Gegenwart*, 1911, no. 48: 799.

Kampmeier, A. "An Appeal to the Better Knowledge of Dr. W. B. Smith", *Open Court* 28:61, 1914.



- Kampmeier, A. "A Protest Directed to W. B. Smith's Christ's First Word on the Cross", *Open Court* 26: 310, 1912.
- Keyser, Cassius J., "William Benjamin Smith" in *American Scholar* v. 4, no. 2, 1935, p. 239.
- Keyser, Cassius J., "William Benjamin Smith" in *Scripta Mathematica* v. 2, no. 4, 1934, p. 305.
- Klyce. "Ecce Deus" in Klyce's *Sins of Science*, 1925, p. 397.
- Knight, Ray, "A Mathematician on the Origin of Christianity—William Benjamin Smith", *Hibbert Journal* 33, p. 222.
- Lovejoy, Arthur O., "The Theory of a Pre-Christian Cult of Jesus", *Monist* 18: 597-609, 1908.
- Melhorn, Paul, "Ist Der Vorchristliche Jesus Widerlegt?" in *Neue Jesus Literatur. National Cyclopaedia of American Biography*, "William Benjamin Smith" 9: 133.
- "People in the Foreground—William Benjamin Smith", *Current Literature* 38:509, 1905.
- Pfeiderer, Otto. "Review of *Der Vorchristliche Jesus*," 1906.
- Schmidt, Nathaniel, "Review of Ecce Deus", *Philosophical Review* 22: 563-564, 1913.
- Schmiedel, P. W., "Preface" to *Der Vorchristliche Jesus*.
- Schnehen, Wilhelm von, "Das Freie Wort Der Volkserzieher".
- Schnehen, Wilhelm von, "The Secret of Christianity (Ecce Deus)", *Open Court* 26: 546-549.
- Schweitzer, M., "Leben und Lehre Jesu", *Theol. Rundschau*, 12, no. 4.
- Schweizer, A. *Lebens-Jesus Forschung*, p. 492.
- Soltau, W., "Der Vorchristliche Jesus, 1906", *Berliner Philol. Wochenschrift*, June 1, 1907, p. 687.
- Town and Country Review*, Nov. 1, 1933. London. (a sketch of Dr. William Benjamin Smith with photo.).
- "Vorchrist", *Kirchenblatt*, Jan. 3, 1908.
- Whittaker, T.: *Priests, Philosophers and Prophets*, p. 246.
- Who's Who* 1932-1935.
- Who's Who in America*, 1903-1934.

Names of journals in which appeared, during the years 1906-1915, reviews and comments on Dr. William Benjamin Smith's books, *Der Vorchristliche Jesus* and *Ecce Deus*.

a—Foreign

Christliche Freiheit, June 13, 1909  
 Berliner Philologische Wochenschrift  
 Preuschen's Zeitschrift (Harnack)  
 Preussische Jahrbuecher 126: 1  
 Revue Archeologique  
 Revue Biblique Internationale  
 Revue Critique, Sept. 24, 1906  
 Revue del'histoire des religions  
 Revue Historique  
 Theologisch Tijdschrift  
 Theologische Literaturblatt  
 Theologische Revue  
 Theologische Rundschau  
 Theologischer Jahresberich 26

b—American

Boston Transcript, Nov. 25, 1911  
 Chicago Record-Herald  
 Dial (Chicago)  
 International Journal of Ethics  
 Monist  
 New York Times  
 New Yorker Zeitschrift

c—English

Christian Commonwealth  
 Inquirer  
 Literary Guide  
 The Quest  
 Review of Theology and Philosophy  
 Westminster Review, Oct. 1907.



THE UNIVERSITY OF MISSOURI BULLETIN

VOLUME 37, NUMBER 12

LIBRARY SERIES, NUMBER 18

MISSOURI LIBRARIES

1915-1935

by

HENRY ORMAL SEVERANCE

ADA McDANIEL ELLIOTT

ANN TODD



Columbia, Missouri

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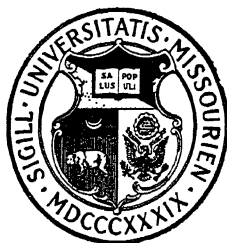
## MISSOURI LIBRARIES 1915-1935

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ANN TODD



Columbia, Missouri



## INTRODUCTION

The first Handbook of the Missouri Library Association was edited by a committee of which Carrie Westlake Whitney of the Kansas City Public Library was chairman. It was published in the Report of the Missouri State Superintendent of Schools in 1906.

This Handbook was a brochure of twenty-eight pages giving information on the activities of the Association. It also gave the library laws of the state and a list of the various public and institutional libraries. The data were secured through individual correspondence and from the reports of the United States Commissioner of Education. This first Handbook contained a text of the law which created the Missouri Library Commission, and included also a list of the members of the Association.

The next Handbook appeared in 1915, compiled by the Secretary of the Missouri Library Commission, was published in the Report of the Missouri Library Commission for 1915, and with slight revision was again published with the Commission Report in 1916. This Handbook contained a rather complete list of the libraries in the state with dates of founding, brief history, illustrations, and other information of interest and value to librarians.

The present Handbook, authorized by the Executive Board of the Missouri Library Association at its meeting in St. Louis, November 6, 1935, aims to record as complete data as possible on library activities and progress in Missouri for the twenty-year period 1915-1935.

The historical data on the founding of libraries given in the 1915 Handbook are not repeated, but the names of all libraries with time of founding as far as could be ascertained are given, with names of librarians and statistical information.

Brief statistics from Melvin W. Sneed's Survey of the Libraries in Missouri are included. For detailed information contained in this Survey the reader should consult Mr. Sneed's comprehensive Report published as Research Bulletin 236 of the Missouri Agricultural Experiment Station, Columbia, Missouri, 1936.

We trust that the present Handbook will prove to be of real service to the librarians of our state.

ADA McDANIEL ELLIOTT, *President, 1935*  
Missouri Library Association.

## CONTENTS

	Page
Introduction .....	3
Missouri Library Association Activities 1915-1935 .....	5
Constitution of the Missouri Library Association .....	10
State Library Plan of Missouri (revised 1935) .....	11
History of Certification of Librarians in Missouri .....	17
Missouri Library Commission .....	22
Missouri Library Laws—Summary .....	26
State Library Survey—Summary .....	30
Library Clubs, Staff Organizations and Affiliated Organizations .....	33
Library Training Agencies .....	37
a—University of Missouri .....	37
b—Teachers Colleges .....	38
c—Public Libraries .....	39
Larger Gifts to Libraries in Missouri .....	40
Missouri Library Association Officers 1900-1935 .....	42
Missouri Library Association Members 1934-1935 .....	44
a—Regular (Starred names are members of A. L. A.) .....	44
b—Institutional .....	49
c—Life .....	49
Librarians to Whom Certificates Have Been Granted Under the Voluntary Plan .....	51
Statistics of Libraries .....	57
a—Public Libraries Established 1915-1935 .....	57
b—Tax Supported Public Libraries .....	58
c—Non-Tax Supported Public Libraries .....	60
d—University and College Libraries .....	62
e—Special Libraries .....	63
f—Libraries in State Eleemosynary and Penal Institutions .....	64

## ILLUSTRATIONS

Library Map of Missouri .....	2
Map of Distribution of Traveling Libraries .....	23
Chart of Rural and Urban Library Facilities .....	30



## MISSOURI LIBRARY ASSOCIATION ACTIVITIES 1915-1935

by

HENRY O. SEVERANCE

The Missouri Library Association was organized in 1901 for the purpose of fostering the library interests of the state in general and for securing legislative enactment for the creation of a State Library Commission in particular. The Commission was secured in 1907. Since then the Association has secured a County Library Law (1921) and has initiated and supported the movement to secure an amendment to the state constitution providing for a separate library tax for libraries.

There have been few projects of the Association covering more than a single year; a notable exception was the campaign covering a term of years in securing the County Library Law. The officers of the Association change annually so that projects requiring work and planning for a term of years are seldom undertaken. However, in the last few years some worthwhile projects covering a period of years are still in progress. Such are the State Library Plan, the Voluntary Certification of Librarians in Missouri, the organization of the Citizens' Council, and the like. For the most part the annual conferences consider current problems such as cataloging, book selection, book buying, publicity, and the problems incident to the small public and institutional libraries of the state. Occasionally some project of unusual interest and importance has been given special attention. Such a project was the emergency library service created during the World War, which enlisted not only the services of the Association but also the services of every librarian in the state.

The Library War Service was organized on national lines by the American Library Association. The state organizations were used for the purpose of raising funds for carrying on the service and for the collections of books for the forts, camps, and other training centers. The State Library Executive selected for Missouri was Elizabeth B. Wales, Secretary of the Missouri Library Commission. The Regional Directors were: Purd B. Wright for the Western District, and Arthur E. Bostwick for the Eastern District. In the three campaigns for books 81,922 volumes were collected and forwarded to the camps. \$21,634.05 were donated for the cause and forwarded to the Library War Service in Washington.

Later the Federal Food Administration was established with State Directors. Frederick B. Mumford, Dean of the College of Agriculture, was the State Director for Missouri. The distribution of the literature was made by the Secretary of the Missouri Library Commission at the request of the

State Director. The Commission distributed for him 91,463 pieces. When the books were returned from overseas at the close of the war, the Commission received 5,750 volumes of them. Some of the books found their way into the travelling libraries, others into collections for the veterans' hospitals and into small towns where the books became nuclei of collections for embryo public libraries.<sup>1</sup>

The other major activities of the Missouri Library Association during the last twenty years have been:

### 1. AFFILIATION WITH THE AMERICAN LIBRARY ASSOCIATION

Affiliation was effected in 1913, and by its terms the Association has contributed ten cents per member to the expenses of the American Library Association. When the A. L. A. in 1930 decided to raise one million dollars (or its equivalent) to insure the gift of a like amount from the Carnegie Corporation for the enlarged activities of the organization, the Missouri Library Association became a contributing member at twenty-five dollars a year.

### 2. INSTITUTIONAL MEMBERS

The Missouri Library Association in 1913 provided for institutional memberships carrying an annual fee of two dollars. The proceeds were to be used for printing library aids or for other purposes helpful to libraries in the state. Twenty-nine libraries in 1935 had availed themselves of this opportunity for membership.

### 3. INSTITUTES AND DISTRICT CONFERENCES

An institute was conducted October 26-28, 1909, in Columbia preliminary to the annual conference of the Association meeting in Columbia. It was directed by Elizabeth B. Wales, Secretary of the Missouri Library Commission, with the assistance of local talent, for the benefit of librarians in small towns who felt the need of elementary instruction in the technical processes of library work. Under the supervision of a special committee, district conferences were held in 1914, the first one May 15 in St. Joseph followed by conferences in Moberly, Hannibal and in St. Louis. Another attempt to hold conferences of this nature was made in 1922, when meetings were held in Joplin, Springfield, Hannibal, Moberly, and Chillicothe. All of these conferences were under the direction of the Secretary of the Missouri Library Commission. So few librarians availed themselves of this service that the promoters of the district conferences discontinued them.

<sup>1</sup>A detailed account of Missouri's part in the Library War Service may be found in Library Series No. 16 of the *University of Missouri Bulletin*, entitled "Missouri in the Library War Service." Free for postage, three cents.

#### 4. JOINT CONFERENCES WITH OTHER ASSOCIATIONS

The regional A. L. A. conferences were inaugurated to give the librarians who were unable to attend the National Conferences an opportunity to enjoy these smaller conferences where a considerable number of leaders of the A. L. A. would be present to discuss national problems. They were in a sense to be miniature A. L. A. conferences. Two or more state associations have usually cooperated and have secured A. L. A. leaders for their problems. Such regional conferences were those at St. Joseph in 1922, embracing the Kansas, the Nebraska, and the Missouri Associations; at Sioux City in 1925, in which the Associations of Iowa, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota participated; and at Des Moines in 1932, with Nebraska, Iowa, Kansas, Missouri, and Minnesota cooperating.

The Association has joined in several conferences with the Department of Libraries of the Missouri State Teachers Association. Such conferences were held in Maryville in 1926, at which Milton J. Ferguson, Librarian of the California State Library, was the guest speaker; in Kansas City in 1928, when the Association provided as speaker C. A. Yawberg on "County Libraries" for the general session of the Missouri State Teachers Association, and again in 1935 in St. Louis, in which the Association provided a joint luncheon with the Department of Libraries of the Missouri State Teachers Association, at which several outstanding leaders in both professions participated. This was followed on the next day by a joint session of the Library Association together with the English and Library sections of the Missouri State Teachers Association for the discussion of problems of interest to school librarians.

#### 5. HIGH SCHOOL LIBRARIES

Several conferences in addition to the joint conferences noted above have been devoted to papers and discussions on the improvement of high school libraries,—notably the conferences in 1923, 1924, and 1932. As early as 1915, at the request of the Missouri State Teachers Association, a joint committee of the two associations was appointed to study the high school problems of the state. As a result of this emphasis, a survey of the high school libraries was made by Henry O. Severance. The result was embodied in his "The Standard Library Organization Suggested for Missouri High Schools," published as *University of Missouri Bulletin*, Education Series, No. 13, 1919.

#### 6. THE COUNTY LIBRARY LAW

The Missouri Library Association sponsored the movement for a County Library Law for Missouri. Its officers with the financial and moral support of the Association carried the movement far enough to have a law providing for county libraries enacted in 1921. State Association committees had been appointed annually from 1915 to 1921 to work for the passage of this law.

## 7. MISSOURI LIBRARY HISTORY

The attention of the Association in 1921 was focussed upon the importance of collecting and preserving documentary material for a history of library activities in Missouri. Two papers were presented, one by the late Sula Wagner, Head of the Catalog Department, St. Louis Public Library, on "Material for the History of Public Libraries", the other by James A. McMillen, at that time Librarian of Washington University, on "College and University Libraries."

## 8. A SEPARATE TAX FOR LIBRARIES

The Missouri Library Association through its Extension Committee launched a vigorous campaign in 1929 to secure an amendment to the state constitution permitting a separate tax for library purposes over and above the present constitutional limitations. The amendment was passed by the House in 1931, was reported favorably in the Senate but failed to come up for a vote. When the depression came on the committee ceased its intensive activity and in October 1931 placed the project on the agenda of a five year program.

On the same program was the movement to increase the membership of the Association and to interest other organizations in the problems of library service. The membership was doubled. A Citizens' Council was created to further library interests in women's clubs, civic organizations, and other groups.

## 9. THE STATE LIBRARY PLANNING BOARD

In 1933 and 1934, when federal money became available for promotion of worthwhile projects, the Governor appointed a State Planning Board. The leaders in the library field in Missouri considered it highly important that this State Planning Board should consider a forward-looking plan for the library interests of the State. A State Library Planning Committee was appointed by the President of the Association. This committee devised a state library plan which was presented to the annual library conference in Excelsior Springs in 1934. It was adopted, and then was sent to the State Planning Board. This Library Planning Committee, with a few changes in personnel, was reappointed for 1935. It worked out a revision of the library plan which was presented to the annual conference in St. Louis in November 1935, and was adopted.<sup>2</sup>

## 10. CO-OPERATIVE ACQUISITION OF RARE AND EXPENSIVE MATERIAL

Agitation for a co-operative enterprise was begun in 1910. The plan was to compile a Union Catalog of the book resources of the state. The various libraries were to file with the Missouri Library Commission the cards showing their holdings. The project was called Bibliography for College and Reference

<sup>2</sup>The text of the report may be found on page 11.

Libraries. The chairman, Sula Wagner, reported in 1911 that an expert would be needed for this compilation. The Association was not able to provide the expert service. Consequently, the committee was discontinued in 1913. At the 1929 conference, Henry O. Severance presented to the Association an address on "Inter-library Loans of Research Materials", advocating a union list of the serials held in the libraries of the state. This information was to be assembled at a central agency. In Charles H. Compton's paper, "Five Year Program," given before the Association in Cape Girardeau in 1931, he urged the creation of a Committee on the Co-operative Acquisition of Rare and Expensive Material, implying the compilation of a union list of serials and of expensive material held by the libraries of Missouri. The tangible result of this committee's work is the *Union List of Serials in the Libraries of Missouri*; and the provision for the committee to collect from the libraries throughout the state by means of cards their holdings of rare and expensive materials, these card files to be kept at a central place, such as the St. Louis Public Library.

#### 11. VOLUNTARY CERTIFICATION OF LIBRARIANS

The certification of librarians was advocated by Henry O. Severance in the conference of 1921 when James A. McMillen, Librarian of Washington University, gave a paper on this subject. He was requested to prepare a detailed plan and present it to the conference in St. Joseph in 1922, which he did; but the Association declined to support the plan. The question of certification was presented to the Association again in 1932 at the Columbia conference. Voluntary certification is now a fact. For an account of its development, see Ada M. Elliott's article on "The History of Certification of Librarians in Missouri" on page 17.

## CONSTITUTION OF THE MISSOURI LIBRARY ASSOCIATION

Proposed at the annual meeting held at Warrensburg, October 15, 1907, and unanimously adopted at the annual meeting held at Moberly, October 16, 1908.

I. The name of this association shall be the Missouri Library Association.

II. The object of this association shall be to promote the library interests of the State of Missouri.

III. Any person interested in advancing its object may become a member of this association by vote of the executive board and payment to the treasurer of the annual fee.

IV. The officers of this association shall be a president, two vice-presidents, a secretary, and a treasurer, who shall be elected at the annual meeting to serve for one year or until their successors be chosen. They shall, together with the retiring president, constitute the executive board, which shall have full power to act for the association in intervals between meetings.

V. There shall be at least one meeting each year. The time and place of each meeting shall be fixed by the association or by the executive board, and ample notification shall be sent in each instance to every member of the association. The annual meeting shall be held in October.

VI. The annual fee shall be one dollar for each member and shall be payable to the treasurer in January. No officer, committee, or member of the association shall incur any expense in its name, nor shall the treasurer make any payment from its fund (except as otherwise provided for in this section) unless authorized to do so by vote of the executive board. A contingent fund of ten dollars (\$10) shall be placed at the disposal of the treasurer, to be expended at his discretion for the incidental expenses of the association, and all expenditures from this fund shall be accounted for in the treasurer's annual report.

VII. The secretary and the treasurer shall each present a report at the annual meeting of the association. The report of the treasurer shall be audited by the president before it is presented.

VIII. This constitution may be amended at any meeting of the association by a majority vote of the members present, provided notice of the proposed amendment has been previously furnished to each member in the call for the meeting.

Amendment No. 1. There shall be an institutional membership, carrying the annual fee of \$2.00, the proceeds to be deposited in a special fund and used only by vote of the full executive board for printing library aids or for other purposes helpful to libraries in the state. All libraries of any kind, including school libraries, in the State of Missouri are eligible for this membership.

Amendment No. 2. Life Memberships. There shall be a life membership carrying a fee of \$15.00, the proceeds to be deposited in the special fund provided by Amendment No. 1.

## STATE LIBRARY PLAN FOR MISSOURI

(Revised 1935. Adopted by the Missouri Library Association,  
November 7, 1935)

## THE SCOPE

"The state should assume responsibility for the establishment and maintenance of adequate educational and library facilities for all its citizens."

The purpose of the Plan is to furnish adequate library service to every school, to every village, and to every rural community.

The Plan implies a central library agency with regional branches, deposit stations, and book truck service.

The central library agency should make a survey of the book resources of the state and of the present library facilities. The plan emphasizes libraries for every school, the legal certification of librarians, the placement of librarians, and a legislative reference library.

## THE PLAN

The General Assembly has already recognized its responsibility by appropriating money for the public schools of the state for the purpose of helping to equalize the educational opportunities of all the children of the state. This library Plan implies a similar appropriation for equalizing library opportunities for all the children and the adult citizens of Missouri.

The situation at present is deplorable. Forty-four (44) counties including St. Louis have tax supported public libraries; 43 have libraries not supported by taxation and 28 have no libraries.<sup>3</sup> There are 3,678,000 people in the state, but only 1,740,000 have library facilities. Therefore, 50% of the total population of the state are without libraries. About 90% of the rural population are without the benefit of books from public libraries. Many of the counties are too poor to tax themselves for county libraries; most of the villages are unable to furnish the funds for their schools, to say nothing of a tax for libraries. Their funds for schools are supplemented with allotments from the state, otherwise they would be unable to provide the minimum school facilities for their children. The children are taught to read in the schools; an adequate library service would supply reading matter for every school. Where there are no books, no library service, the pupils are greatly limited and hampered in their continuous education.

The public libraries in the state are not receiving from their local communities adequate support. With the trend to shift the basis of taxation from real estate to income and sales taxes the funds for library service may be considerably less. Trustees may well consider the effect of a decrease of rev-

<sup>3</sup>The 28 counties without libraries are: Barton, Benton, Ballinger, Christian, Dade, Dallas, Davies, Douglas, Gasconade, Hickory, Howell, Iron, Knox, McDonald, Maries, Moniteau, Oregon, Osage, Perry, Pulaski, Schuyler, Shannon, Stone, Sullivan, Warren, Washington, Wayne.

enues upon the service the libraries are rendering and provide for more money so that the present library service may not be curtailed.

State support of its public libraries is not new. The Legislature of Illinois in 1935 appropriated \$600,000 for the purchase of books and magazines to be distributed to the public libraries of the state on the basis of population service. The Ohio Legislature appropriated \$100,000 for a similar service.

#### CENTRAL LIBRARY AGENCY

The Library Planning committee would therefore recommend that the General Assembly of Missouri be urged to create a central library agency; the purpose of which would be to furnish library service to all the children and adult people of the state. This central agency might well be the Missouri Library Commission, which has furnished book service in a limited way since 1907. This central agency would require a large collection of books, possibly 100,000 volumes, which would become a large lending library. This library and the headquarters of the agency might well be located in Jefferson City, the Capital of the state.

In order to facilitate the distribution of reading material and to keep the cost of the service within reasonable bounds, a system of regional libraries should be provided for and kept under the supervision of the central agency as far as control and distribution of books to the various parts of the state are concerned. These regional libraries would be, in a practical sense, branches of the state library to be established. The present public or institutional libraries might be used as regional centers by the payment from the state for service and for the use of books, or the state agency could stock those libraries with books needed for circulation in their respective parts of the state. Books might be loaned from these regional stations to the residents in their region, and deposit stations might be established in groceries and drug stores in the villages of that particular section. Possibly book trucks would be installed to take books to the homes, even in the most inaccessible places, to the hospitals, to the penitentiary, to the intermediate school at Algoa farm, to the industrial schools for boys and girls, and to other institutions. The central agency would have a department of libraries with an adequate personnel to handle the business. The regional libraries would have one or more technically trained librarians and non-professional helpers to enable the library to establish a system of travelling libraries and book truck service. The librarian would be a field worker who could advise readers on the use of books and could assist in the formation of new libraries in counties and villages.

The location of these regional libraries would depend largely upon the terms which might be made with the co-operating libraries. For the good of the service there should be two north of the Missouri River, possibly in Hannibal and St. Joseph; and four south of the Missouri River, possibly in Sedalia and



Springfield in the west and southwest, and Poplar Bluff and Rolla in the east and southeast, or possibly in St. Louis and Cape Girardeau.

#### BOOK RESOURCES OF THE STATE

This plan implies a survey of the book resources of the state and a union catalog of the rare and expensive books, the sets of proceedings and transactions of learned and scientific societies and the other serial publications in the libraries of the state, showing their location and the holdings of all the libraries. This is primarily research material, but the list should include books not common to the smaller public libraries. Then by the system of inter-library loan or by some system devised by the central agency these books would become available to all citizens of the state.

A *Union List of the Serials in the Libraries of Missouri* has already been compiled and mimeographed. It was a co-operative undertaking in the sense that the several libraries participating furnished lists of their holdings. No one library or educational or research institution can purchase all the material needed for the use of research students, but by a division of the field, and by the co-operative purchase of materials, the combined libraries may possess practically all the necessary material. The central library would then become a bibliographical center for the state.

#### A SURVEY OF THE LIBRARY FACILITIES OF THE STATE

The Plan, in order to furnish library facilities to the remote corners of the state, contemplates a survey of the library service now being rendered by all the agencies in the state—the tax supported and the non-tax supported public libraries, subscription libraries, club and society libraries, rental libraries, and traveling libraries; and the location and names of counties, villages and communities which have no access to libraries. The needs must be known before they can be satisfied. Such a survey has been made under the supervision of the Rural Sociology Department of the University of Missouri. The summaries of statistics of both public and school libraries will be available before this Plan has been adopted by the General Assembly.

#### LEGISLATIVE REFERENCE LIBRARY

One of the important functions of this central library would be the establishment and maintenance of a legislative reference library in the capitol for the use of the senators, representatives, and officers of the state government. An ample collection of legislative material, a trained librarian to handle the material and to interpret it, and to help put new bills in form to be presented to either or both houses of the Legislature would render incalculable service to the officials of the state. On December 1, 1914, such a library was organized as a division of the Missouri Library Commission, but the library has had no appropriation for books or for a permanent staff,

hence its inefficiency. It should have a permanent staff of trained personnel to aid members in finding information, in writing bills, and in indexing and preserving bills.

The legislatures of Wisconsin and of other states find the service of the legislative reference library very useful in the study of legislation and in the writing of bills to be presented to their respective legislatures.

#### SCHOOL LIBRARIES

This Plan contemplates provision for a supervisor of school libraries attached to the staff of the central library agency or to the staff of the superintendent of public schools. There is already a working agreement between the Missouri Library Commission and the Department of Public Schools. The Superintendent is ex officio a member of the Commission. While the law provides for libraries in the high schools and in the elementary schools, the funds have not been sufficient in many districts to provide for annual additions to their collections. The General Assembly has provided additional funds for the schools of the state. It should provide also for library service for the schools. In many villages and rural districts, the school library might be utilized to furnish books to the adults and children in their respective communities. The survey of school libraries conducted by the Rural Sociology Department would be available for the supervisor. The standards for libraries in high schools of various types have been adopted by several regional accrediting agencies such as the North Central Association. The State Department of public schools has already established standards for high schools of different grades and has indicated the desired qualifications of high school librarians, but they are not compulsory. Certificates are not required<sup>4</sup> nor is there a law requiring high schools to adopt and maintain the standards for book collection and library personnel. It is just as necessary for librarians of high schools to be well prepared for their duties as it is for teachers to be trained for their profession.

#### CERTIFICATION OF LIBRARIANS

At present there are no educational or professional qualifications required of applicants for library positions in Missouri. In New York and Wisconsin minimum standard requirements for library positions have been established by law. In Missouri, barbers, doctors, lawyers, opticians, and teachers must possess certain qualifications before they are allowed to practice, but librarians who are in the business of education are not required to possess any definite educational qualifications. They may be legally employed in any library in the state whether the libraries are supported by taxation or not. Citizens pay thousands of dollars in support of their libraries and therefore have a right to demand higher professional standards and have a right to

<sup>4</sup>*Missouri Library Manual*, "Standards of library organization and equipment for schools of different types."

demand technically trained librarians to direct them. To meet this demand higher professional standards are therefore demanded for librarians. A means of establishing standards and of certifying librarians must be provided.

Librarians in this state to the number of 400 have voluntarily qualified for various grades of certificates, granted by the Board of Certification of the Missouri Library Association. The demand is for legal certification based on standards of qualifications established by the profession and made legal by the General Assembly.

This central library agency should be empowered by law to set the standards and issue the certificates.

#### PLACEMENT OF LIBRARIANS

Provision should be made by this central agency not only to examine candidates and to grant certificates but to assist librarians unemployed to secure positions. It is assumed that this agency will know the library personnel of the state, and will know the local conditions in various parts of the state. With a knowledge of local conditions and an acquaintance with his personnel, the director of the placement bureau can fit the librarian to the job.

#### ADULT EDUCATION

The shortening of the hours of labor per day and fewer days in the week means that millions of people of the state will have enforced leisure hours. Libraries are making a bid for that leisure time by offering reading material for entertainment and for vocational advancement. The Federal Government trained teachers in Columbia this summer (1935) to conduct classes of adults and to direct their reading. These teachers will contact only a few of the adults who wish to make the best use of their spare time, to improve their minds and to become more adept and more proficient in their vocations. The library is the one important institution for helping this class of citizens. The libraries become in a real practical sense the peoples' universities.

#### SUMMARY

The state should supplement local budgets. It should provide that library service be made available for every citizen in the state. Every child of school age should have access to books and magazines in his school library.

The State Library Commission, which is already functioning in state-wide service through its traveling library system, might well be made this central library agency. It would need to be reorganized and enlarged, to be given a large collection of books for circulation and for deposit in the regional libraries, and a personnel sufficiently large to care for the certification, for the circulation, for field work, for placement, for supervision and the like. A legislative library service should be provided. A union list of research library material should be provided. The principle of co-operative acquisition of

materials of research and inter-library loans should be established. This would render duplication unnecessary and the central library would become a bibliographical center and clearing house for book information for all the state. The details of the plan remain to be worked out. School libraries should be emphasized and adequate collections of books provided for all schools. A library in every school would help to equalize the unequal educational opportunities of the children in the Ozark section of our state.

The most significant advance in library efficiency in the state would be a law requiring certificates of qualification for future librarians. The high standard of qualification of teachers is reflected in better schools. The efficiency of the schools cannot rise above the teachers. Similarly librarians make the libraries. If a library has a high standing in a community, it is usually due to its adequate book collection and the administration of the librarian.

Your committee recommends this plan as the most practical and the most efficient and the least expensive of all plans to provide library service for the residents of cities, villages, rural districts and for the children in our schools. It may be considered as one of the best educational and social institutions of the state.

Respectfully submitted,

The Committee:

W. H. CHENERY

ADA M. ELLIOTT

VERA J. PROUT

C. H. COMPTON

LUELLA ST. CLAIR MOSS

ALICE M. WALDRON

GERTRUDE DRURY

RUTH O'MALLEY

HENRY O. SEVERANCE,

*Chairman*

## HISTORY OF CERTIFICATION OF LIBRARIANS IN MISSOURI

BY ADA McDANIEL ELLIOTT, *President, 1935*  
Missouri Library Association

"Standardization and Certification of Librarians" was one of the important questions discussed by the Missouri Library Association as far back as 1920, when the Conference met in St. Louis at the Public Library, October 27-28. The subject was brought up in connection with the "Question Box" and round table discussion of "Everybody's Problems," when each member of the Association had the privilege of expressing his own views.

In the following year the President<sup>5</sup> of Missouri Library Association appointed a Committee to make a study of this subject and to report its findings to the next Conference. Thus in 1921 the Chairman<sup>6</sup> of this Committee brought in a comprehensive report making definite recommendations for the certification of librarians in Missouri. The Association voted to have the Committee continued, and instructed it to bring before the Conference of 1922 a further report with the draft of a bill to be presented to the Legislature in 1923.<sup>7</sup>

This second report was presented and adopted by the Missouri Library Association at its Conference in October 1922. The bill was drawn, was presented to the Conference and was discussed at length. The Association desired further time to consider the bill, and finally postponed the matter until the next Conference without authorizing the introduction of the bill in the Missouri Legislature. Here the matter of Certification was dropped for the time being.

At the American Library Association Annual Conference at New Haven in June, 1931, the Council passed a resolution urging that each state promote legislation authorizing the proper agencies to set standards for the certification of librarians.

Acting upon this suggestion the Missouri Library Association at the official Regional Meeting of the American Library Association in Des Moines, Iowa, October, 1932, appointed a Committee to study the matter of Certification and make a report.

At a special meeting of the Missouri Library Association in Columbia, Mo., in May, 1933, the report of this committee with its recommendations was received and a definite plan was accepted providing for a Board of Certification to be appointed by the President. This Board<sup>8</sup> made a comprehensive

<sup>5</sup>H. O. Severance, Librarian, University of Missouri.

<sup>6</sup>James A. McMillen, Librarian, Washington University.

<sup>7</sup>Library Messenger. v. 2, no. 2, pp. 16-19. Library Messenger. v. 2, no. 6, pp. 80-85.

<sup>8</sup>Ada McDaniel Elliott, Chairman, University of Missouri Library; Ruth O'Malley, Secretary, (and Sec'y of Library Commission, Jefferson City); Harriet P. Sawyer, St. Louis Public Library; Henry O. Severance Librarian, University of Missouri; Alice M. Waldron, Park College, Parkville; Grace M. Young, Librarian Sedalia Public Library.

report at the Missouri Library Association Conference in Chicago, October, 1933, and funds were provided for the initial expense of the project.

A preliminary letter was sent in January, 1934, to Missouri librarians and trustees, stating the advantages of certification and announcing that a covering letter together with the Schedule of Qualifications for the voluntary certification of librarians in Missouri would follow. An application blank also was included. This covering letter, mailed the latter part of January, 1934, gave facts relating to the establishment of certification in some of the other states and explained the plan for Missouri.

The responses from the applications sent out were most gratifying. To date (Nov. 1935) there have been 400 librarians in Missouri who have qualified for certificates under this plan.

The following is a list of the certificates which have been granted and the number of librarians to whom they have been issued:

Librarian's professional library school life certificate.....	1
Librarian's professional life certificate.....	239
Librarian's professional five-year certificate.....	95
Librarian's professional three-year certificate.....	46
Library worker's one-year certificate.....	19
Total.....	400

The Certification Board of Missouri meets twice a year for the consideration of applications.

After more than a year's experience under the original scheme the plan has been somewhat changed as the result of further study of standards of classification adopted by other states and according to whatever records were obtainable from American Library Association headquarters.

The following is the revised schedule of qualifications which was passed upon by the Certification Board October 5, 1935, and was adopted by the Missouri Library Association November 7, 1935, at its annual conference in St. Louis:

MISSOURI LIBRARY ASSOCIATION, VOLUNTARY CERTIFICATION OF LIBRARIANS,  
ADMINISTERED BY THE CERTIFICATION BOARD OF  
MISSOURI LIBRARY ASSOCIATION

The following resolution was adopted by the Council of the A. L. A. at the New Haven meeting:

RESOLVED: That each state be urged to promote legislation authorizing the proper agencies to set standards for the certification of librarians, with the provision that such certification shall not affect librarians in service.

At the Montreal Conference of the A. L. A., the Council indorsed, as a part of National Planning, the following:

Certification of librarians should be provided by state law where it is now lacking, as a means of improving library service through raising the standard of library personnel and preventing the appointment of unqualified persons.

The Missouri scheme of classification for voluntary certification in use since January 1, 1934, has been somewhat changed after further study of standards adopted by other states, and in accordance with the experience of the Board of Certification under the original scheme.

These rules for classification of librarians do not apply to secretarial and clerical workers, pages, part time or volunteer workers.

In all statements of length of service, if not full time work, for any grade, the number of hours worked per week must be stated.

Application for certificate, renewal, or promotion should be sent to the Chairman of the Certification Board of the Missouri Library Association. A charge of fifty cents will be made for each and should be sent with the application.

The Board will meet twice a year and all applications should be in the hands of the Chairman by March first or September first.

#### REVISED SCHEDULE OF QUALIFICATIONS

Applicants in library work previous to January 1, 1934, who have no formal library training, may be granted a certificate on the basis of their experience. All other applicants must fulfil the specified library training requirements.

##### *Librarian's graduate library school life certificate (Grade 1)*

Four years' course in college or university, 2 full years' work in library school, one of which shall have been of recognized graduate grade, with evidence of satisfactory completion; and one year's successful work in a responsible position.

##### *Librarian's professional life certificate (Grade 2)*

Four years' course in college or university, one full year's work in library school, and two years' successful experience in a responsible position.

or

Third grade requirements plus three years' experience in a responsible position in a library area of 10,000 population or more.

or

Four years' high school or its equivalent, and 15 years of successful experience in a responsible position in a library area of over 20,000 population.

##### *Librarian's professional five-year certificate (Grade 3)*

Three years in college, one year in library school, and two years' experience.

or

Two years in college, one year in library school, and four years' experience.

or

One year in college, one year in library school, and six years' experience.  
or

Four years in college, six weeks in library school, and three years' experience.

or

Three years in college, six weeks in library school, and five years' experience.

or

Two years in college, six weeks in library school, and seven years' experience.

or

One year in college, six weeks in library school, and nine years' experience.

or

Four years in high school or its equivalent, one year in library school, and eight years' experience.

or

Fourth grade plus three years' successful experience under conditions specified for Grade 4.

*Librarian's professional three-year certificate (Grade 4)*

Four years in high school or its equivalent, six weeks in library school, and eight years' experience.

or

Four years in high school or its equivalent, library training class, and eight years' experience.

or

Four years in college and one year's experience.

or

Three years in college and three years' experience.

or

Two years in college and five years' experience.

or

One year in college and seven years' experience.

or

Four years in high school or its equivalent, and nine years' experience as librarian.

or

Four years in high school or its equivalent, and nine years' experience as a library assistant in a library area of over 7,000 population.

*Library workers one-year certificate (Grade 5)*

Four years in high school or its equivalent, six weeks' library course and three years' experience.

or



Four years in high school or its equivalent, and four years' experience as librarian or library assistant in a library area of 3,000 or more population. (Applicable only to those in positions previous to January 1, 1934.)

The Certification Board grants a temporary certificate to an applicant lacking necessary experience and renews it in cases where two years' experience is necessary to qualify for a certificate.

#### EXPLANATION OF TERMS USED

*Library Schools*—See list of schools accredited by the A. L. A. Board of Education for Librarianship, A. L. A. Handbook.

*Standard Summer Library School*—A course of six weeks. (90 hrs.)

*Library Training Class*—A six months' course with lectures, class work, and practical work directed by competent instructors and supervisors. (Equivalent to a Summer Library School course of six weeks, 90 hrs.)

*Promotions and Renewals*—In order to obtain a renewal of a certificate or to qualify for the next higher grade certificate the candidate must not only meet the conditions specified but submit evidence, such as an annual report or the statement of his Library Board of Trustees or his librarian, of successful work under the present grade of certificate held, and evidence of professional growth.

*Responsible Position*—The phrase "responsible position" indicates the position of librarian, assistant librarian, head of a department or branch, a specialist (such as a cataloguer), senior assistant and children's librarian, in a library area of 10,000 or more population.

ALICE M. WALDRON, *Chairman*

ADA M. ELLIOTT

RUTH O'MALLEY

HARRIET P. SAWYER

HARRIET SHOUSE

GRACE M. YOUNG

## MISSOURI LIBRARY COMMISSION

BY RUTH O'MALLEY, *Secretary*

The central library organization for the state of Missouri is the Missouri Library Commission which was created by law in 1907. The duties of the Commission are in brief: (1) To give advice to all free, public, and school libraries regarding their establishment and maintenance; to help them in their choice of books, in the classification and cataloguing of their books; and to assist them in other details of management. (2) To provide for the loan of traveling libraries to clubs and other community organizations throughout the state, to public schools, to colleges, and to other libraries, for purposes of supplementing their own book collections,—this circulation of books all free except for transportation.

The first objective is one of the major functions of the Commission. For several years this function has been practically non-existent because of the lack of funds. In 1914 and again in 1922 the Secretary of the Library Commission directed the Library Institutes in the northwestern, the central, the southwestern, and various other sections of the state,—nine in all. In 1920 and in 1922 the Secretary visited forty-two libraries counseling with the librarians as to the selection of books, the methods of preparing them for circulation, and the administration of the libraries. In these years the Secretary of the Commission also spoke before many groups interested in library service.

Information on library technique and on the establishment of libraries was issued in mimeograph form and sent out. Collections of pamphlets such as the Standard Catalog and Book-list Books were sent to libraries out in the state. Then too the *Library Messenger*, the official organ of the Commission, which began publication in 1913, was used for nine years or until 1922 to convey information to the librarians; book lists, news of the library world, and general information to librarians was included. A News Letter in mimeographed form, at first issued monthly, later issued quarterly, has furnished an ineffectual medium for communication between the Commission and the librarians of the state from 1923 to date.

In the circulation of books, which was the second major project of the Commission, there has always been the problem as to how to extend book service to the 1,770,000 people in the state who live in rural communities where there are no libraries. While the original purpose of the Commission was to send the traveling and package libraries to the women's clubs and various community organizations in the rural districts of Missouri, the insistent demands on the part of individual citizens in these localities for book service has resulted in the individual loans becoming one of the major services given. The library of the Commission, numbering approximately 36,000 volumes, has thus become a central circulating library for more than 1,770,000 people.

Individual requests have increased annually up to 1930, when three-fourths of all requests were for loans to individuals; in 1934, one-half were individual requests. In 1932 the total circulation of books from the Commission was 60,301 of which 19,318 were issued to individuals. This was the maximum circulation of any one year. The circulation declined in 1933 and in 1934 due to a curtailment of service on account of decrease in the staff and due to a very limited appropriation for the years 1933-1934. The staff consisted of seven members in 1933, and of three members in 1934. The appropriation for 1921 was \$13,250.00; for 1926, \$11,000.00; for 1933, \$5,431.25. The circulation steadily increased from 1920 when it was 14,955 to 1932 when there were 60,301 books sent out. In 1934 the circulation dropped to 30,241, lower than it had been in 1925. With the Commission staff limited to three members, the individual loans in 1934 were necessarily reduced and emphasis was placed on the package and traveling libraries.

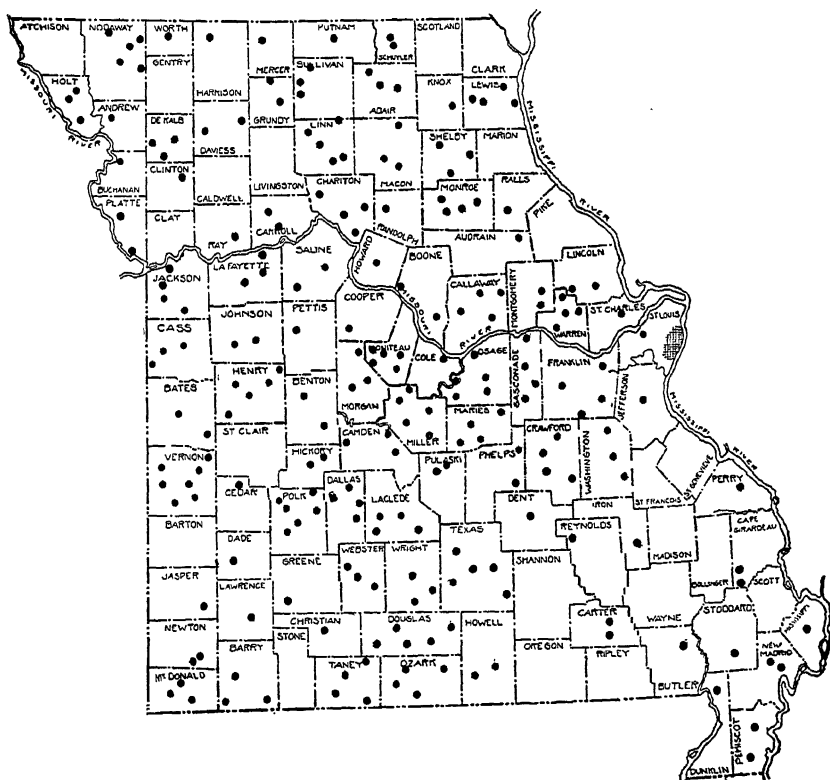


Figure 2.—Distribution of Traveling Libraries.

The library of the General Assembly, usually known as the Legislative Reference Library, was created in 1909 and placed under the control of the House and Senate during the sessions of the General Assembly, and under the Secretary of the Library Commission at other times. In 1912 provision was made by the Commission for the employment of a Legislative Librarian from November 1st to December 31st. By a House resolution the position was continued and salary paid during the session and two clerks from the House and Senate were appointed. This policy was followed for several years. For the past few years no support has been given by the Assembly for carrying on the duties of a legislative library. Innumerable questions coming from similar state agencies in other states are answered when possible by the Secretary of the Library Commission.

The statistics on file show a steady increase in requests received, in volumes added and in the field of service. There were 10,159 requests answered in 1932. The peak of the service of the Commission in all lines was probably reached during this year. The staff had been increased sufficiently to handle the work. Unfortunately, during the 1933 General Assembly, House Bill No. 5 was introduced providing for the abolishment of the Library Commission. For a period of three months continued existence was uncertain. When the bill failed of passage, the appropriation provided was just \$862.50 more than the amount provided for the Commission at the time of its organization in 1907. Thus the library was left with a large circulation built up through its years of service, and at the same time was left with the problem as to where and how its service might be curtailed. The biennium of 1933-1934 was one of uncertainty, with intervals of activity when assistance was obtained through the Civil Works Administration and the Federal Emergency Relief Administration in the form of personnel.

The Secretaries of the Library Commission, the Members of the Commission, and statistical data on circulation follow:

#### SECRETARIES OF THE MISSOURI LIBRARY COMMISSION

1907-1919	Elizabeth B. Wales	1925-1933	Jane Morey
1920-1925	Irving R. Bundy	1933-	Ruth O'Malley

#### MEMBERS OF THE MISSOURI LIBRARY COMMISSION

1907-1912	Purd B. Wright	1912-1913	Mrs. W. K. James
1907-1915	J. P. Green	1912-1915	W. P. Evans
1907-1912	Adelaide J. Thompson	1915-1920	T. Berry Smith
1907-1908	Richard Henry Jesse	1915-1916	A. P. Settle
1907-1916	Howard A. Gass	1916-1918	Uel W. Lamkin
1909-1919	A. Ross Hill	1918-1921	Curtis E. Chrane
1912-1918	Arthur E. Bostwick	1918-1923	Sam A. Baker

1918-1935	Ward Edwards	1930-1935	Elizabeth Summersby
1920-1925	Mrs. W. K. James	1930-1935	Walter Williams
1921-1923	John Carlton Jones	1932-	Charles C. Schuttler
1922-1930	Clarence J. Baxter	1933-	Mrs. Luella St. Clair Moss
1923-1934	Charles A. Lee	1934-	Lloyd W. King
1924-1930	Stratton D. Brooks	1935-	Emily M. Lewis
1926-1932	Mrs. Joseph J. Richesin	1935-	Frederick A. Middlebush

## STATISTICS OF THE MISSOURI LIBRARY COMMISSION

<i>Year</i>	<i>Requests Answered</i>	<i>Volumes Circulated</i>
1916	584	16,441
1917	468	15,557
1918	184	8,656
1919	431	11,096
1920	546	14,955
1921	879	16,423
1922	1,299	19,641
1923	2,083	21,838
1924	2,787	29,248
1925	2,821	32,202
1926	4,374	38,867
1927	4,444	41,427
1928	4,908	45,323
1929	5,739	43,175
1930	7,223	55,492
1931	8,139	56,484
1932	10,159	60,301
1933	9,514	54,425
1934	5,045	30,241
Totals	71,630	611,794

As most of the books sent out from the Library Commission are circulated many times in the communities to which they are sent, often as many as 30 in rural schools, a very conservative estimate of the circulation is obtained by multiplying the total by 5, making the complete circulation 3,058,970.

## MISSOURI LIBRARY LAWS—SUMMARY

Compiled by ANN TODD

## SECTION REFERENCE

Note: All Section references are to Missouri Revised Statutes 1929 unless otherwise indicated.

State Library: Sections 13413-13431. Sections 13413 and 13419 have been repealed and new sections enacted. (Laws 1931, p. 261).

Missouri Library Commission: Sections 13432-13437.

Library of the General Assembly: Sections 13438-13444.

School Libraries: Sections 13445-13447. See also Section 9198.

City, Village and Township Libraries: Sections 13448-13462. See also Sections 6377-6386 for cities of 75,000-150,000 inhabitants. (See also decision of Supreme Court of Mo. v. 178, p. 222.

County Library Districts: Sections 13463-13472.

Libraries in Cities of over 300,000 Inhabitants: Sections 13473-13478.

School Libraries in Cities: Sections 9333, 9541. See also Sections 9422; 9215; 9539, 9540; 9528-9532, 9535; 9533-9535, 9549; 9428. [Section 9333 has been amended (Laws 1935, p. 350-51). Section 9534 has been amended (Laws 1935, p. 348-50). Sections 9533, 9528, 9539, 9540 have been repealed and new sections enacted (Laws 1935, p. 353-58).]

County Use of City Libraries: Section 13459.

City Use of County Libraries: Section 13468.

Incorporated Libraries: Sections 4999, 5006.

For detailed information the reader is referred to the proper sections in the Revised Statutes of the State of Missouri, 1929, and to the Laws of 1931 and 1935.

Missouri laws provide for free public libraries in cities, villages and townships; for free county libraries; for school district and incorporated libraries.

## FREE PUBLIC LIBRARIES

To establish a free public library in an incorporated city, it is necessary to secure the petition of one hundred taxpaying voters, asking that the question of establishing a free public library be submitted to the voters of the city at the next regular election or at a special election which may be called for the purpose. Such petition shall specify the rate of taxation (which shall not exceed two mills on the dollar annually, or if in a city of 100,000 or over,  $\frac{3}{8}$  of one mill annually). The law requiring the submission of the question is mandatory, and the city council must present it to the people. If a majority of the voters voting on such question vote "for the tax for the free public library" the tax

specified shall be levied and collected as are other taxes. (Section 13448) Sections 13449-13456 cover library operations in detail.

This question of tax is not stated as plainly in the law as might be. It should be borne in mind that this tax is not, as Missouri cities are governed, an increase in taxation. There are limits to taxation provided by the Constitution, and this library tax authorized is simply an order upon the tax-levying power to set aside from the taxes it is permitted to levy the amount the voters say must be used for library purposes. Under the Constitution, cities of 30,000 or more may levy a tax for general purposes of \$1.00 on the \$100; of less than 30,000 and more than 10,000, 60 cents on the \$100; of less than 10,000 and more than 1,000, 50 cents on the \$100; and in towns having 1,000 or less, 25 cents on the \$100. The Supreme Court of the State has said (178 Mo. 222) that "a city which has levied the maximum tax permitted by the Constitution for general purposes cannot levy an additional tax of two mills for library purposes. Nor can the Legislature give it power to exceed the maximum rate provided by the Constitution for cities of its class." A city of 1,000 to 10,000 population may levy a 50 cent tax to run the city government. If a library tax of 10 cents is ordered, all other expenses of the city government must be met from the remainder, 40 cents. In other words, the amount voted for a library is simply deducted from the amount already authorized to be levied.

Subject to the same conditions, in addition to the library maintenance tax, any city may create a library building fund. The proceedings in this instance are the same as for library maintenance, the petition asking for an increased tax for a library building (limited to  $1\frac{1}{2}$  mills on the dollar annually for a period of five years). This requires a vote of two-thirds of the qualified voters of such city voting at such election. (Section 13460).

In an incorporated village or township, the proceedings for establishing a library are the same as for cities, with the exception that but fifty names are required to the petition to have the question submitted to the voters. (Section 13457).

#### COUNTY USE OF FREE PUBLIC LIBRARIES

Citizens of any county wherein is situated a city containing a free public library may acquire the use of said library by petition of one hundred taxpayers residing in said county outside of said city and a like number of citizens residing in the city, addressed to the county court; the court then having the right to contract with the board of directors of the library for the use of said library by all the citizens of the county, the compensation therefor not to exceed three per cent of the county revenue for the year out of which payment is to be made. (Section 13459).

#### COUNTY LIBRARIES

To establish a county library it is necessary to secure the petition of one hundred (100) taxpaying citizens, "outside of the territory of all cities and

towns . . . maintaining, at least in part by taxation, a public library"; the petition "asking that a county library district of the county, outside of the territory of all such aforesaid cities and towns, be established." Such petition shall be directed to the county court and shall specify the rate of taxation (which shall not exceed two mills on the dollar). The question shall be submitted to the voters and if a majority of votes is obtained the county library district shall be established and the tax specified for a free county library shall be levied and collected "in like manner with other taxes in the rural school districts of" the county. (Section 13463). Sections 13464-13472 cover county library operations in detail.

In 1921 the Missouri Legislature passed the county library law, which contains the following main provisions: (1) Upon petition of 100 voters, the county court must submit the county library proposition to the voters at an annual election, specifying a tax rate of not over two mills. (2) This law creates a county library board and outlines its duties, which are similar to those of a city library board. (3) It authorizes donations and bequests. (4) It provides for library service by contract with another library. (5) Service must be freely accessible to all parts of the county.

#### INCORPORATED CITY OR TOWN USE OF FREE COUNTY LIBRARIES

Provision is made whereby any incorporated city or town located in a free county library district may become a part of the free county library system. (Section 13468).

#### SCHOOL LIBRARIES—STATE LIBRARY BOARD

The State Library Board consists of five members, four of whom are appointed by the state board of education, the state superintendent of schools being a member and ex officio chairman. (Section 13445). The duty of the Board is to "select, classify and recommend a list of suitable books for school libraries, supplementary reading and school reference books." Provision is made for the classes of books to be covered, and the compilation of a list of suitable titles. It is also provided that the Board shall enter into contract with publishers of the books selected, to furnish them, transportation charges prepaid, at the lowest possible costs to the district; for a revision of the list every two years, and for the printing and distribution of same by the State Superintendent of Public Schools. (Section 13446). "For the purpose of purchasing school libraries, supplementary and reference books, district boards of directors shall set aside, out of the levy made for incidental purposes, not less than 5 nor more than 20 cents per pupil enumerated in the district each year, which shall be spent under the direction of the board in purchasing books". . . (Section 13447). "For the purpose of purchasing schoolhouse sites, erecting schoolhouses [library buildings] and furnishing the same, . . . the board of



directors shall be authorized to borrow money and issue bonds for the payment thereof, in the manner herein provided." (Section 9198).

#### SCHOOL LIBRARIES IN CITIES

In any city as specified below, the board of education has power "to establish and maintain separate libraries and public parks and playgrounds for the use of white and colored persons in such school district and for the use of the public school district therein, and to appropriate such sums as they may deem proper for the support thereof;" for cities of 20,000 and under 100,000 inhabitants, \$2,500 annually; 5,000 and under 20,000, \$500; 1,000 and under 5,000, \$250. (Section 9333). See also Section 9422. Section 9215 states how library site is selected, how title is obtained and how board can condemn site.

School districts in cities of 75,000 and less than 500,000 inhabitants are more generously dealt with; "the board of directors of any such city school district shall have power to establish and maintain a library and free reading room for the use of the school district, and to appropriate such sums as the board may deem proper" for their support. (Section 9541). For acquiring sites see Sections 9539, 9540. Bond issues are covered in Sections 9528-9532, 9535; tax increases in Sections 9533-9535, 9549. Maintenance of library in case of annexation of city school district is covered in Section 9428.

#### INCORPORATED LIBRARIES

Provision is also made for the subscription library (Section 4999) and the endowed library. (Section 5006). See also Section 5071.

#### MISSOURI LIBRARY COMMISSION

"The governor shall appoint three persons, who, with the state superintendent of schools and the president of the state university, shall constitute the Missouri library commission." (Section 13432).

The duties of the commission include: "advice to all school, free, and other public libraries, and to all communities which may propose to establish them, as to the best means of establishing and maintaining such libraries, the selection of books, cataloguing and other details of library management." It may "receive gifts of money, books or other property which may be used or held in trust for the purpose or purposes given." It "may purchase and operate traveling libraries, and circulate such libraries within the state among communities, libraries, schools, colleges, universities, library associations, study clubs, charitable and penal institutions, free of cost, except for transportation. . . It may publish lists and circulars of information . . . , it may also conduct summer schools of library instructions, and a clearing house for periodicals for free gift to local libraries." (Section 13433). Sections 13434-13437 cover library commission operations in detail.

See page 22 for history of Missouri Library Commission.

## STATE LIBRARY SURVEY—SUMMARY

by

E. L. MORGAN AND M. W. SNEED

The following brief review of the State Library Survey reported in Research Bulletin 236 of the Missouri Agricultural Experiment Station, Columbia, Missouri, lists some of the findings of this investigation on a state-wide basis. It is not a complete statistical summary.

## PUBLIC LIBRARY FACILITIES

1. There are 135 public libraries in Missouri. Only 52 are tax supported, a few receive municipal aid, four are endowed, and those remaining are maintained by various other sources of revenue.

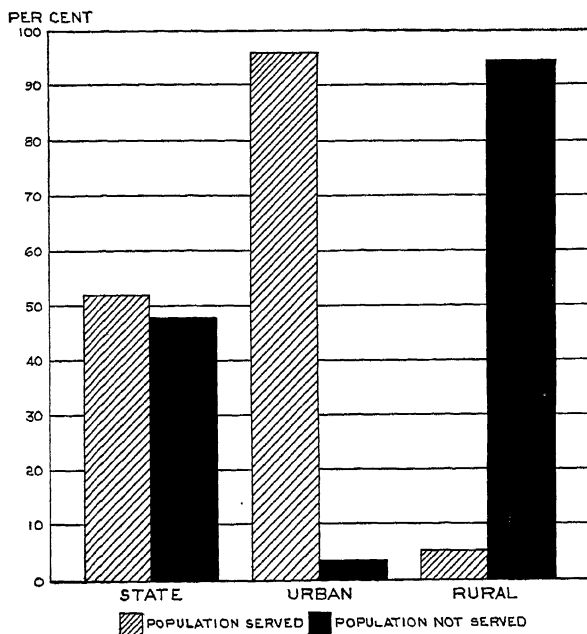


Figure 3.—Rural and Urban Library Facilities.

2. Only 44 counties (including the city-county of St. Louis) out of 115 in this state have tax supported libraries within their boundaries. An additional 43 have non-tax supported libraries, while 28 counties have no public libraries of any description. Most of the latter are south of the Missouri River and are in the Ozark Region.

3. There are 1,740,897 people who are not served by public libraries. This is 48 per cent of the total population of the state and pertains almost exclusively to rural people. Of this group approximately 95 per cent has no

access to public library facilities. On the other hand, more than 95 per cent of the urban population is served. The contrast is one of rural-urban inequality of facilities, an inequality toward which every county contributes.

4. Missouri ranks second in the percentage of total population served when compared with adjoining states. But when compared with all states, it ranks twenty-fifth, which is below the percentage for the United States as a whole. When only the percentage of the rural population that is served is compared, Missouri's rank among the adjoining states falls, conspicuously, to seventh.

5. Public libraries contain 2,193,965 volumes. About three-fourths of these are in the five largest cities, which contain some 40 per cent of the total state population.

6. While the total number of volumes in libraries has increased in every year since 1925, still there are only six-tenths (0.6) volumes per capita. This is well below the per capita for the United States.

7. More than eleven and one-half million books were circulated in 1934. This total, however, was unusually large. The circulation per capita in the same year was almost three and one-half volumes, a marked increase over that in 1925.

8. Data from libraries reporting show that the circulation per borrower was a little more than 15 volumes in 1934. This was below the average for the preceding 10 years (1925-1934) and was considerably below that of 18.6 volumes in 1932.

9. About one-half of the public libraries do not include newspapers in their service, while nearly 20 per cent have no magazines or other periodicals.

10. Full time public librarians have an average of 11 years' experience, while the average for part time is a little more than three years. Approximately 90 per cent of these librarians have served only in the library from which they reported and only one out of every five has attended a library school.

11. The average annual salary for full time librarians in tax supported libraries is \$942. This average increases as the population of the place where the librarian serves increases.

12. A sum of more than nine hundred thousand dollars was expended through public libraries in 1934. This expenditure amounted to only 27 cents per capita. Ninety-eight per cent of the total was expended by urban libraries.

13. Missouri's per capita expenditure compares favorably with that of the adjoining states but it is below that for the United States.

14. Data from the libraries reporting indicate that from 1931 through 1933 total circulation increased about 15 per cent while total expenditures were decreasing by a similar amount.

15. In 1934, fifty-two cents of the "library dollar" were distributed in the form of salaries, 17 cents for new books, three were spent for newspapers

and periodicals, and the remaining 28 cents were consumed by all other expenditures.

#### OTHER LIBRARY FACILITIES

16. A sample comprising almost one-half the high schools in this state provides the basis for the estimate that there are probably over one million volumes in high school libraries, while there is an average of 1,400 volumes per school and a median of 950. However, there is considerable variation in the number of volumes from school to school. The number of volumes varies directly with the size of the school, while the number per student varies inversely.

17. Approximately 60 per cent of the high school libraries have newspapers, most of which are local weeklies, while nearly 40 per cent have none. Periodicals are found in about 80 per cent of these libraries.

18. In 1934 the average expenditure per high school for books, newspapers, and periodicals was a little more than \$120.

19. Part-time student attendants are generally found instead of regular librarians in high school libraries.

20. Nearly one-half the high school libraries are available to the public but they are generally little used.

21. There are about one and one-half million volumes in the college and university libraries in the state.

22. Librarians in college and university libraries are generally better trained and better salaried than are those in public libraries.

23. College library facilities are available to the public in two-thirds of these institutions and in some cases this use is quite extensive.

24. More than 700,000 volumes were revealed by a sample which includes the major special libraries. Less than 20,000 volumes were reported in a sample of institutional libraries. These facilities are reported as being insufficient in several respects.

25. It appears reasonable to estimate that there are more than 30,000 volumes in several hundred rental collections which are distributed throughout the state. Small rental collections seem to have been established in large numbers during the recent financial emergency.

26. The Missouri Library Commission, which is the state central library agency, has approximately 36,000 volumes.

27. The largest proportion of all requests answered by the Commission are those made by individuals, but the greatest proportion of the total number of volumes sent out is forwarded to communities.

28. Funds which have been available for the activities of the state library Commission have not been large enough to provide adequately for the extension and maintenance of the Commission's service.

## LIBRARY CLUBS, STAFF ORGANIZATIONS AND AFFILIATED ORGANIZATIONS

## 1. COLUMBIA LIBRARY CLUB. Organized December 1907.

Purpose: Development of social activities, professional and library interests of Columbia.

Officers:

1908

1935

President.....H. O. Severance.....B. Lamar Johnson

Vice-Pres.....Miss Williams.....Jane Frodsham

Anna L. Severance

Secretary.....S. Blanche Hedrick.....Ann Todd

Treasurer.....Clarence W. Sumner.....Bon-Jean White

2. KANSAS CITY PUBLIC LIBRARY STAFF ORGANIZATION. Organized May 19, 1916, with Helen S. Read as president.

Officers:

1935

President.....Eleanor Minor

Vice-Pres.....Helen S. Read

Secretary.....Gertrude Pope

Treasurer.....Katherine McNabb

3. MISSOURI VALLEY LIBRARY CLUB, 1914-1921. Organized October 21, 1914, suspended November 22, 1921, Purd B. Wright, president.

4. ST. LOUIS PUBLIC LIBRARY. (a) Staff Committee 1912. Composed of 7 members appointed by the Librarian 1912-1923; elected by correspondence votes by the entire staff 1924. Purpose: To look after staff welfare and to solicit and collect pledges for the community funds.

(b) St. Louis Chapter of the American Library Association. Organized February 21, 1921, with 54 members. Meetings are twice a year. Secretary-Treasurer, Madeleine Closs.

5. SOUTHWESTERN LIBRARY CLUB, 1916-1925. Composed of librarians of Carthage, Joplin and Webb City.

Officers:

President.....Alice R. Gladden, 1916-1924

Secretary.....Emily Bird Smith, 1916

Secretary.....Blanche Trigg, 1917-1924

6. SPRINGFIELD LIBRARY CLUB, 1915-1918. Composed of librarians and student assistants of Drury College, the Public Library, and the Missouri State Teachers College. A rather loose organization without officers and meeting three or four times a year.

7. THE DEPARTMENT OF LIBRARIES OF THE MISSOURI STATE TEACHERS ASSOCIATION. The department was organized in 1908 with the assistance of Elizabeth B. Wales, Secretary of the Missouri Library Commission. There

have been annual conferences since that time in which papers and discussions have emphasized the improvement of school libraries.

Officers: 1935  
 Chairman.....Mildred K. Allen  
 Vice-Chairman.....Eliza H. Gibbany  
 Secretary.....Sadie T. Kent.

8. THE MISSOURI LIBRARY ASSOCIATION. This organization has been affiliated with the American Library Association since 1913.

9. JUNIOR MEMBERS OF THE MISSOURI LIBRARY ASSOCIATION.  
 Organized at the conference in Excelsior Springs, 1934.

Purpose: To promote professional growth and advancement of its members.

Projects: (1) Publication of a booklet addressed to the members of the General Assembly asking their support of the Missouri Library Commission. (2) Survey of unemployed librarians in Missouri. (3) Salary survey of librarians in Missouri.

Officers: 1935  
 Chairman.....Paul Howard  
 Vice-Chairman.....Ruth T. Manlove  
 Secretary.....Grace Collins, resigned  
 Secretary.....Annadele Riley

Officers elected November 1935 for the ensuing year:

Chairman.....Ruth T. Manlove  
 Vice-Chairman.....Annadele Riley  
 Secretary.....Clement S. Skrabak

## CITIZENS' COUNCIL FOR MISSOURI LIBRARIES

This Council was organized at Excelsior Springs, October 22, 1934, with the following officers: Luella St. Clair Moss, President; L. M. Birkhead, 1st Vice-President; Margaret Powell, 2nd Vice-President; and Gertrude G. Drury, Secretary.

It is a citizens' body affiliated with the library profession through the requirement that its secretary be an active librarian, in the state of Missouri. The aim of the organization is the extension of efficient book service to all citizens of Missouri through the activity of individuals and the coordinated efforts of representatives of civic and service organizations.

The officers for the year 1935-36 are: Mrs. H. H. Muchall, President; L. M. Birkhead, 1st Vice-President; Mrs. J. L. Lindsay, 2nd Vice-President; and Gertrude G. Drury, Secretary.

DISTRICT 1—Chairman, Essie Ward: Andrew, Atchison, Buchanan, Caldwell, Carroll, Clay, Clinton, Davies, DeKalb, Gentry, Grundy, Harrison, Holt, Livingston, Mercer, Nodaway, Platte, Ray, Worth.

DISTRICT 2—Chairman, Hazel Price: Adair, Audrain, Boone, Callaway, Chariton, Clark, Howard, Knox, Lewis, Lincoln, Linn, Macon, Marion, Monroe, Montgomery, Pike, Putnam, Ralls, Randolph, Schuyler, Scotland, Shelby, Sullivan.

DISTRICT 3—Chairman, Mrs. Carolyn B. Cockefair: Bates, Benton, Camden, Cass, Cedar, Cole, Cooper, Henry, Hickory, Jackson, Johnson, Lafayette, Miller, Moniteau, Morgan, Pettis, St. Clair, Saline, Vernon.

DISTRICT 4—Chairman, Mrs. William G. Simrall: Franklin, Gasconade, Jefferson, Osage, St. Charles, St. Louis, Warren.

DISTRICT 5—Chairman, Mrs. W. P. Magee: Barry, Barton, Christian, Dade, Dallas, Douglas, Greene, Jasper, Laclede, Lawrence, McDonald, Newton, Ozark, Polk, Stone, Taney, Webster, Wright.

DISTRICT 6—Chairman, Mrs. J. L. Lindsay: Bollinger, Butler, Cape Girardeau, Carter, Crawford, Dent, Dunklin, Howell, Iron, Madison, Maries, Mississippi, New Madrid, Oregon, Pemiscot, Perry, Phelps, Pulaski, Reynolds, Ripley, St. Francois, St. Genevieve, Scott, Shannon, Stoddard, Texas, Wayne, Washington.

The membership of the Citizens' Council as of January 1, 1936, is as follows:

Mrs. Jennie Alexander, New London  
Mrs. O. O. Ash, Moberly  
Dr. Clara Auer, St. Louis  
Mrs. Fred Baker, Hannibal  
Mrs. A. H. Baldwin, Pleasant Hill  
Mrs. W. C. Beaven, Hannibal  
Mrs. Ruth Beazley, Steelville  
Mrs. Mary Bentley, Huntsville  
L. M. Birkhead, Kansas City  
Mrs. Caroline K. Bowles, St. Louis  
Oradelle Bruehmann, Maplewood  
Mrs. E. C. Buckner, Fayette  
C. J. Burger, Washington  
Mrs. Elise Byrd, Malden  
Mrs. DeWitt C. Chastian, Butler  
Mrs. Carolyn B. Cockefair, Warrensburg  
Mrs. W. D. Cosner, Trenton  
Mrs. P. H. Crane, Kansas City  
Ada Claire Darby, St. Joseph  
Mildred Dawson, Eolia  
Wesley A. Deneke, Flat River  
Mrs. Frank E. Dorsey, Kansas City  
Mrs. Helen Edwards, Slater  
Mrs. Chas. C. England, Festus  
Mrs. Frank C. Fay, Chillicothe  
Roy Freund, Houstonia  
Mrs. C. S. Fitz, Poplar Bluff  
Mrs. Carolyn F. Fuller, Kansas City  
Mrs. C. L. Grant, Jackson  
Mrs. A. Ross Hill, Kansas City  
Mrs. Carl Hinn, Excelsior Springs  
L. S. Hopkins, Canton  
Carl B. Ike, West Plains  
Chas. F. Johnson, Lebanon  
Emily Lewis, St. Louis

Mrs. J. L. Lindsay, Poplar Bluff  
Mrs. David S. Long, Harrisonville  
Harry McMillan, Lee's Summit  
Claudia McMurray, Fayette  
Mrs. Warren Mabrey, Cape Girardeau  
Mrs. W. P. Magee, Springfield  
Mrs. O. Myking Mehus, Maryville  
Mrs. J. G. Miller, Montgomery  
Lee Montgomery, Sedalia  
Mrs. Luella St. Clair Moss, Columbia  
Mrs. H. H. Muchall, University City  
Mrs. Hugh Page, Milan  
Margaret Powell, Cape Girardeau  
Dr. Guy Price, Kansas City  
Hazel Price, Glasgow  
Mrs. S. P. Reynolds, Caruthersville  
M. D. Robbins, Fredericktown  
C. H. Sackett, St. Louis  
Grace Shepherd, Maryville  
Mrs. William G. Simrall, St. Louis  
Mrs. O. L. Smith, Overland  
Mrs. Harry Sneed, Sedalia  
Charles V. Stansell, Kansas City  
Mrs. Arthur Stockstrom, St. Louis  
Mrs. Harold Thornton, Clarksdale  
Mrs. Allen Umstattd, Overland  
Mrs. W. E. Walker, La Monte  
Essie Ward, King City  
Irwin Williams, Sumner  
Mrs. Scott Wilson, Ferguson  
Dr. Frank R. Wright, Webster Groves  
Mrs. H. A. Young, Salem



## LIBRARY TRAINING AGENCIES

The first movement toward systematic training for librarians in Missouri was made by the University of Missouri in 1903 when an apprentice course was given by James T. Gerould, Librarian of the University.

The Normal Schools followed with courses: Kirksville in 1904; Warrensburg in 1906; Springfield in 1910; Maryville in 1912; and Cape Girardeau in 1914.

The purpose of these courses was to acquaint students with the elementary processes of library work, so that they might be able to fill positions in these State Teachers Colleges.

## I. THE UNIVERSITY OF MISSOURI

The University of Missouri Library began instruction in Library Methods in 1903, an apprentice course. Then in 1908 a course for credit was offered in the Summer School. No other course was offered until 1911 when through the co-operation of the Missouri Library Commission and the St. Louis Public Library a six weeks' course was held in the Cabanne Branch of the St. Louis Public Library.

In the following year, 1912, the University Library in co-operation with the St. Louis Public Library and the Missouri Library Commission offered the first Summer Library School of six weeks, with four hours' credit toward a B. S. degree in Education. Three courses were offered:

- (1) Cataloguing and classification with two hours' credit
- (2) Administration of school libraries with one hour credit
- (3) Reference and book selection with one hour credit.

These courses under the same auspices each carrying two hours' credit were offered in successive Summer Library Schools in alternate years: 1914, 1916, 1918. For the next two years, owing to war conditions, they were not given. In 1921 the fifth Summer Library School was held. This session required the full time of the student, and gave six hours' credit in the School of Education in the University of Missouri.

Henry O. Severance was Director of these Summer Library Schools. Elizabeth B. Wales, Secretary of the Missouri Library Commission, assisted with the courses during the years 1912, 1914, 1916, 1918. The St. Louis Public Library was represented by Harriet P. Sawyer, Director of the Public Library School, in 1912; by Effie L. Power, children's librarian, in 1914; by Margery Quigley, branch librarian, and Alice I. Hazeltine, children's librarian, in 1916; by Bertha Uhlemeyer, cataloguer, and Alice I. Hazeltine, in 1918; and by Gertrude G. Drury, chief instructor in the St. Louis Library School, and Anna P. Mason, children's librarian, in 1921. The University contributed the time of Florence Whittier, reference librarian, in 1912 and in 1914; Emma K.

Parsons, reference librarian, in 1916 and 1918; and of Henry O. Severance, University Librarian, and of Grace Barnes, reference librarian, in 1921.

Lectures to supplement these courses were given by professional people in their various fields.

Beginning with the regular session of 1910, a library course giving two hours' credit in the School of Education was offered by members of the University Library Staff:

(1) Administration of school libraries. (2) Cataloguing and classification. A similar library course was thus given during each regular session of the University up to and including 1917, after which it was discontinued.

In 1915 Henry O. Severance conducted a two hour course in Library Science for teachers during the regular summer session in the University. This course was given annually up to and including 1932 with one exception (1931). In 1919 it was given by Emma K. Parsons, reference librarian; in 1920 because of the absence of H. O. Severance, who was engaged in library war work, the course was given by Fannie Dunlap, reference librarian. In 1921 and during the successive years Mr. Severance was Director of the Summer Library Courses in the University, assisted by Grace Barnes, in 1921 and 1922; by Will H. Collins, reference librarian, in 1923-1925; and by Ada M. Elliott, reference librarian, in 1926-1932. After 1932 the Summer Library courses were discontinued because of the lack of funds.

## II. TEACHERS' COLLEGES

The first instruction given in the Teachers' Colleges was designed to give students an elementary knowledge of technique so that they might do apprentice work and make the best use of the college libraries. After 1915 the courses were designed to train teacher-librarians.

*First district—Kirksville.* The first course in library methods was given in 1904, and annually thereafter until 1914. In 1915 two courses were offered: (1) an elementary course; (2) an advanced course designed to fit teachers to organize and administer high school libraries. The former was continued until 1922, the latter until 1918. Then a course on Administration of School Libraries was given, with credit, for the year 1922-1923. Courses were not given 1923-1929; but in 1930 a new course called Library Problems appeared in the curricula and is being continued.

*Second district—Warrensburg.* The first course was offered in 1906; this consisted of six lectures and was required of all students. No credit was given. This work is now given in five lectures.

*Third district—Cape Girardeau.* Courses have been given annually since 1914. Two courses were offered in 1916: (1) General Library Methods given every term, with three hours credit from 1916 to date; (2) Library Organization offered for three hours' credit. The first course has been required of all

freshmen since 1934 without credit; the second course, from 1931 to date, has been known as School Libraries and is designed for teacher-librarians, given in spring and summer terms with two and one-half hours' credit.

*Fourth district—Springfield.* Instruction began in 1910 consisting of lectures to groups of students and teachers, and talks to individual students. In 1919 a formal course in Library Methods for Teacher-Librarians was offered with two and one-half hours' credit. Three courses with laboratory practice were offered in 1920-1921. From 1922 to 1929 a course in the Use of the Library and another on Organization of a High School Library were given in the spring and summer sessions with two and one-half hours' credit. From 1929 to date (1935), the course on the Use of the Library has been given every term with credit toward a degree; and the other course has been given during the summer session only, with credit toward a degree.

*Fifth district—Maryville.* A course in Library Science has been given with various changes since 1912. The course includes instruction in cataloguing, classification, and arrangement of books on the shelves. Instruction in the use of the card catalog, Readers' Guide, reference books and pamphlets is given. Student assistants in the library are selected from those who have completed the course. The course gives two and one-half hours' credit.

### III. PUBLIC LIBRARIES

*Kansas City.* An apprentice training class was organized in 1916. The class was continued annually until 1929, with the exception of 1918. The students paid for instructional and supervisory service,—from twenty-five to forty dollars per month; but they were paid for twenty hours per week practice work. The principal and the head of departments of the library gave lectures on library topics supplementing the class work.

*St. Louis.* Apprentice work dates from 1905 when the first class was formed in charge of the Chief of the Stations Department. In 1910 the course was enlarged from one month to an academic year in charge of a permanent principal.

In 1917 the course was expanded into a Library School of standard grade. The school in 1921 became a member of the Association of American Library Schools and was accredited by the Board of Education for Librarianship of the American Library Association.

In 1932 it was thought best, on account of the depression and the over-supply of trained librarians, to suspend the St. Louis Library School for two years or until such time as it would be advisable to reopen it.

## LARGER GIFTS TO LIBRARIES IN MISSOURI

## Gifts of Money and Books, 1915-1935

There is no claim to completeness in this list. There may have been other large gifts an account of which was not discovered.

The total for new library buildings and sites was \$143,708.

## 1. FOR BUILDINGS AND SITES

- (a) The Carnegie Corporation gave to:
  - Cape Girardeau Public Library, \$20,000
  - Greenfield Public Library, \$8,000
  - Marceline Public Library, \$12,500
  - Monroe City Public Library, \$7,500
  - Shelbina Public Library, \$10,000
  - Total \$58,000
- (b) J. C. Penny gave to Hamilton Public Library, \$10,000
- (c) Helen K. Garth gave to Hannibal Public Library, \$10,000
- (d) Theodore Gary and others gave to Macon Public Library, \$15,000
- (e) George O. Carpenter gave to St. Louis Public Library, Carpenter Branch site, \$13,000
- (f) George F. Steedman gave to St. Louis Public Library, Steedman Architectural Collection, \$37,708

## 2. FOR BOOKS

- (a) Aurora Public Library, \$80 by Martin T. Pope.
- (b) Columbia, University of Missouri, Walter Williams Library, \$500 for initial purchase, 1934, and \$250 annually thereafter, by the Alumni Association of the School of Journalism.
- (c) Hamilton Public Library, \$100 by D. M. Ferguson.
- (d) Kansas City Public Library, \$25,000 by George Sheidley.
- (e) Parkville, Park College, \$2,100 by Mr. and Mrs. George A. Lawrence; \$700 by the Class of 1923; \$250 by the Faculty Women's Club.
- (f) St. Joseph Public Library, \$1,837.50 from the Huggins Estate.
- (g) St. Louis, Concordia College, \$250 from the Lutheran Synod.
- (h) St. Louis, Principia, \$1,000 by the Alumni Association.
- (i) St. Louis Public Library,
  - Books for the Blind
  - Glendale Community Club \$115
  - Lions Club \$350

## The Julia Wiener Fund

Dr. Meyer Wiener \$1,000

Lee Cronbach \$25

Thomas B. Rodgers, Jr. \$25

Mrs. Edward Wolff \$10

Mr. and Mrs. Samuel Butler \$50

Martin J. Collins \$50

Mrs. William Stix \$5,000

G. A. Buder \$5,000

- (j) Shelbina Public Library, \$500 by W. O. L. Jewett; \$180 by the Story Telling Circle.
- (k) Minor gifts of \$750 to Bonne Terre, Hamilton, Tarkio, and Trenton Public Libraries.

## 3. GIFTS OF BOOKS

(Number of volumes or value)

The following libraries received as gifts books valued at \$100 and above: Brookfield, Culver-Stockton, Clarksville, Columbia, Fulton, Kansas City (2,232 volumes, the Greenwood Library), Poplar Bluff, Richmond, Macon.

The University of Missouri received the William Benjamin Smith Library of 3,000 volumes, the Irion Library of 200 volumes; St. Joseph Public Library, 1,200 volumes the gift of Dr. P. I. Leonard; St. Louis Public Library, 328 volumes from Mrs. Elias Michael, 1,375 volumes from Mrs. George Richards, 500 volumes from Mrs. William Marion Reedy; St. Louis Medical Society, 488 volumes; St. Louis University, 735 volumes worth \$825; Washington University, 1,200 volumes from C. F. Sparks and about \$10,000 worth of books from the Bixby Library; Drury College, 300 volumes from Mrs. Albert Marty, 104 volumes from H. M. Beardsley and 204 volumes from Mrs. Alice Gifford. The Kansas City Public Library received a genealogical collection of 1,428 volumes from the family of John Barber White.

## 4. GIFTS IN SUPPORT OF LIBRARY SCHOOLS

The St. Louis Library School received from the Carnegie Corporation in 1926-1932 gifts totalling \$18,000 and in 1928 toward support of summer institute for librarians, \$850.

## MISSOURI LIBRARY ASSOCIATION OFFICERS

1900-1935

	PRESIDENTS	PLACE OF MEETING	DATES
1900	Missouri Library Association organized at	Columbia	Dec. 18-20
1901	Frederick M. Crunden	Kansas City	Oct. 24-25
1902	Carrie Westlake Whitney	Sedalia	Oct. 24-25
1903	J. F. Langton	St. Joseph	Oct. 29-30
1904	Purd B. Wright	St. Louis	Oct. 17
1905	James Thayer Gerould	Jefferson City	Oct. 24-26
1906	Sula Wagner	Joplin	Nov. 7-8
1907	W. L. R. Gifford	Warrensburg	Oct. 15-16
1908	Elizabeth B. Wales	Moberly	Oct. 15-16
1909	H. O. Severance	Columbia	Oct. 25-26
1910	W. H. Kerr	Springfield	Oct. 20-21
1911	Austin D. Wolfe	Hannibal	Oct. 19-20
1912	Paul Blackwelder	St. Louis	Oct. 24-26
	(Joint meeting with Illinois Library Association)		
1913	Charles E. Rush	St. Joseph	Oct. 22-24
	(Joining meeting with Kansas Library Association)		
1914	*Florence Whittier	Sedalia	Nov. 18-20
1915	Jesse Cunningham	Joplin	Oct. 20-22
1916	Arthur E. Bostwick	Columbia	Oct. 11-13
1917	Ward Edwards	Jefferson City	Oct. 17-19
1918	Mary E. Baker	(Not held because of flu)	
1919	Mary E. Baker	Kansas City	Oct. 23-25
1920	Harold L. Wheeler	St. Louis	Oct. 27-29
1921	H. O. Severance	Ha Ha Tonka	Oct. 17-19
1922	I. R. Bundy	St. Joseph	Oct. 17-19
	(Official Regional Meeting of American Library Association; Kansas, Missouri, Nebraska Library Associations)		
1923	James A. McMillen	Hannibal	Oct. 18-20
1924	Ward Edwards	Springfield	Oct. 23-25
1925	Charles H. Compton	Sioux City, Iowa	Oct. 13-16
	(Official Regional Meeting of American Library Association; Iowa, Minnesota, Missouri, Nebraska, North Dakota, South Dakota Library Associations)		
1926	C. Edwin Wells	Maryville	Oct. 14-16
1927	Helen D. Birch	Columbia	Oct. 20-22
1928	Jane Morey	Kansas City	Nov. 15-17
1929	Will H. Collins, resigned	Jefferson City	Oct. 17-19
1930	Purd B. Wright	Sedalia	Oct. 7-9
1931	Arthur E. Bostwick	Cape Girardeau	Oct. 29-31
1932	Sadie T. Kent	Des Moines, Iowa	Oct. 12-15
	(American Library Association Regional Conference; Iowa, Kansas, Minnesota, Missouri, Nebraska Library Associations)		
1933	Jessie Stemmons	Columbia	May 19-20
1934	Alice M. Waldron	Excelsior Springs	Oct. 22-24
1935	Ada M. Elliott	St. Louis	Nov. 6-8

\*Acting President, Harriet P. Sawyer.

## VICE PRESIDENTS

1901	Purd B. Wright	1915	Frances Fordice
	Carrie Westlake Whitney		Nancy McLachlan
1902	Faith E. Smith	1916	Frances Fordice
	Sula Wagner		Lillian Sutherland
1903	W. F. Webb	1917	Mary E. Baker
	Anna Powers		Katherine Jarvis
1904	Sula Wagner	1918-1919	Agnes F. P. Greer
	L. M. McAfee		Mary L. Reichert
1905	Faith E. Smith	1920-1921	Alice I. Hazeltine
	Lowell M. McAfee		Mary Mitchell
1906	F. A. Sampson	1922	Sula Wagner
	Willis H. Kerr		Mary A. Ayres
1907	Elizabeth B. Wales	1923	Margery Doud
	Willis H. Kerr	1924-1925	Helen D. Birch
1908	H. O. Severance	1926	Frances H. Swanwick
	Bessie H. Lee	1927	Grace Langan
1909	Willis H. Kerr	1928	Grace Berger
	Bessie H. Lee	1929	Mary K. English
1910	Austin D. Wolfe	1930	Harriet Horn
	Frances A. Bishop	1931	Frances H. Swanwick
1911-1912	Paul Blackwelder	1932	Alice M. Waldron
	Charles E. Rush	1933	Grace Hill
1913	C. E. Miller		Pearl Clarkson
	Nancy McLachlan	1934	Vera J. Prout
1914	Harriet P. Sawyer		Ada M. Elliott
	Eleanor Hawkins	1935	Gertrude G. Drury
			Paul Howard

## SECRETARIES

1901-1902	James Thayer Gerould	1920	Margaret Hodges (Acting)
1903-1904	Faith E. Smith	1921	Jane Morey (Acting)
1905-1906	Frances A. Bishop	1922-1924	Jane Morey
1907-1908	Flora B. Roberts	1925	Florence B. Currie
1909	Florence Whittier	1926-1927	Fay Delaney
1910-1911	Marguerite McDaniel	1928-1929	Gertrude G. Drury
1912-1913	Florence Whittier	1930-1931	Margaret M. McDonald
1914	Jesse Cunningham	1932-1933	Grace M. Young
1915-1916	Mary E. Baker	1934-1935	Helen D. Birch
1917-1919	Harold L. Wheeler		

## TREASURERS

1901-1902	James Thayer Gerould	1918-1919	I. R. Bundy
1903-1904	Faith E. Smith	1920-1921	James A. McMillen
1905-1906	Frances A. Bishop	1922	Artie West
1907	Flora B. Roberts	1923	Florence Currie
1908-1912	Clarence E. Miller	1924	Harriet Horine
1913	Lula M. Wescoat	1925-1926	Mrs. J. L. Lindsay
1914-1915	Alice R. Gladden	1927-1928	Will H. Collins
1916	Eudora Martin	1929-1935	Lucile Brumbaugh
1917	Margery Quigley		

## OFFICERS ELECTED NOVEMBER 7, 1935, FOR THE ENSUING YEAR:

President.....	Gertrude G. Drury
1st Vice-President.....	Paul Howard
2nd Vice-President.....	Sarah S. Molony
Secretary.....	Mary Kay English
Treasurer.....	Lucile Brumbaugh

## MISSOURI LIBRARY ASSOCIATION MEMBERS

1934-1935

## ABBREVIATIONS

assn.—association	ln.—librarian
asst.—assistant	pres.—president
bd.—board	pub.—public
br.—branch	ref.—reference
catlgr.—cataloguer	sch.—school
child.—children (s)	secy.—secretary
circ.—circulation	sr.—senior
coll.—college	supv.—supervisor
dept.—department	tech.—technical
dir.—director (s)	univ.—university
lib.—library	

Note: \*Member of American Library Association.

## MEMBERS

- Abel, Elizabeth Louise, child. ln. Mark Twain Br. Kansas City Pub. Lib.
- \*Alderton, Mary, Canton Pub. Lib.
- Allen, Mildred K., ln. Webster Groves High Sch.
- Anastasia, Sister M., St. Agnes Academy, Kansas City
- \*Andrae, Julia, ln. Jefferson City Pub. Lib.
- \*Anthony, Lovey A. (colored), Lincoln Univ. Lib., Jefferson City
- Atkins, Dorothy, Hannibal Pub. Lib.
- Atkins, Ida Pearl, ln. Mound City Pub. Lib.
- Bacon, William, asst. Columbia Pub. Lib.
- Baker, James Girard, asst. Columbia Pub. Lib.
- \*Balz, Leonard, chief Catalog and Ord. Dept., St. Louis Pub. Lib.
- \*Balz, Mrs. May Lyons, ln. Barr Br., St. Louis Pub. Lib.
- \*Barkley, Naomi, asst. ln. Soulard Br., St. Louis Pub. Lib.
- \*Bauer, Harry C., ln. Tech. Lib., Tenn. Valley Authority, Knoxville, Tenn.
- \*Becker, Mrs. Eugenia M., ln. Kirkwood Pub. Lib.
- Beevers, Ellen, Kansas City Pub. Lib.
- Beiser, Rose, Westport Br., Kansas City Pub. Lib.
- \*Benoit, Rev. Francis W., S. J., ln. Univ. High Sch., St. Louis
- \*Berger, Grace, 1st asst. Ref. Dept., Kansas City Pub. Lib.
- \*Birch, Helen D., ln. Hannibal Pub. Lib.
- \*Bird, Ruth, asst. ln. Junior Coll., Kansas City
- \*Blaske, Marie A., asst. Washington Univ., St. Louis
- \*Boatman, Mildred, 1st asst. Ref. Dept., St. Louis Pub. Lib.
- \*Boette, Louise H., child ln. Carondelet Br., St. Louis Pub. Lib.
- \*Booth, Mrs. Ida W., head Clipping Dept., Kansas City Pub. Lib.
- \*Booth, Sarah T., child. ln. Traveling Lib. Dept., St. Louis Pub. Lib.
- \*Bostwick, Arthur E., ln. St. Louis Pub. Lib.
- \*Bowen, Lucille, asst. Stations Dept., St. Louis Pub. Lib.
- \*Bower, Sarah C., East Br., Kansas City Pub. Lib.
- Bowers, Clara, asst. Sedalia Pub. Lib.
- Bowman, Helen O., ln. Roosevelt High Sch., St. Louis
- \*Brackman, Grace, asst. child. ln. Crunden Br., St. Louis Pub. Lib.
- Braik, Thelma, ln. William Woods Coll., Fulton
- Brasfield, Alice, asst. Northeast Br., Kansas City Pub. Lib.
- \*Briggs, Virginia, asst. Missouri Lib. Commission, Jefferson City
- \*Brown, Olive I. Catlgr. Central Mo. State Teachers Coll. Lib., Warrensburg
- Bruehmann, O. Carl, Banner Bindery Co., St. Louis
- Bruehmann, O. W., Banner Bindery Co., St. Louis
- \*Brumbaugh, Lucile, asst. ln. Northwest Missouri State Teachers Coll. Lib., Maryville
- \*Buder, Lucille F., sr. catlgr. St. Louis Pub. Lib.
- \*Bundy, Catherine, ln. Engineering Lib. Univ. of Ark., Fayetteville, Ark.



- \*Bundy, Irving R., In. St. Joseph Pub. Lib.
- \*Burd, Mrs. Priscilla P., In. Lincoln Br., Kansas City Pub. Lib.
- \*Byrne, Marie G., secy. to In. St. Louis Pub. Lib.
- \*Campbell, Mrs. Edna M., Sojourners Pub. Lib., Kirksville
- Campbell, Gladys, catgr. In charge of Periodical Desk, St. Louis Pub. Lib.
- \*Cannon, Helen, asst. Central child. room, St. Louis Pub. Lib.
- \*Carlin, Opal, asst. In. William Jewell Coll., Liberty
- \*Carpenter, George O., 12 Portland Place, St. Louis
- \*Carpenter, Mrs. George O., 12 Portland Place, St. Louis
- \*Casey, Louisa W., Veterans Administration Facility Lib., Veterans Hospital, Excelsior Springs
- \*Casey, Phyllis A., In. Gravois Br., St. Louis Pub. Lib.
- Chaney, Mary Lee, Wellston High Sch.
- \*Chenery, Winthrop Holt, In. Washington Univ., St. Louis
- \*Clark, Elizabeth D., head Catalog Dept. Univ. of Mo. Lib., Columbia
- Clarkson, Pearl, In. Columbia Pub. Lib.
- \*Closs, Madeleine, 1st asst. Carpenter Br., St. Louis Pub. Lib.
- \*Cohen, Sarah, Catalog Dept., St. Louis Pub. Lib.
- Collier, Jewell C., In. Vashon High Sch., St. Louis
- \*Collins, Anna Grace, Excelsior Springs Pub. Lib.
- \*Compton, Charles H., asst. In. St. Louis Pub. Lib.
- \*Compton, Ruth R., 5645 Cates Ave., St. Louis
- \*Conover, Charlotte D., child. In. Soulard Br., St. Louis Pub. Lib.
- \*Coons, Sallie, In. Fulton Pub. Lib.
- Cordell, Leona, catgr. St. Louis Pub. Lib.
- \*Cordell, Mildred Irene, In. Union High Sch. Lib., Union
- Cotter, Mrs. Chester, Board Member. North Kansas City
- Cox, Ella R., Golden City
- Crighton, Margaret S., asst. Springfield Pub. Lib.
- Criswell, Mrs. E. H., Wentworth Military Academy, Lexington
- \*Crocker, Mary, chief Open Shelf Dept., St. Louis Pub. Lib.
- Crutcher, Florence J., asst. Ref. Dept., St. Louis Pub. Lib.
- \*Curran, Margaret G., In. Divoll Br., St. Louis Pub. Lib.
- \*Cushman, Frances, asst. In. Carthage Pub. Lib.
- Daniels, Marietta, Kansas City Pub. Lib.
- Daugherty, Mrs. Ray, Senior High Sch. Lib., Neosho
- Day, Katherine, In. Henry County Lib., Clinton
- \*Dean, Helen E., asst. catgr. Univ. of Mo. Lib., Columbia
- Dearing, F. H., Bonne Terre
- \*Deatherage, Sallie Elaine, 1st. asst. Central High Sch. Br., Kansas City Pub. Lib.
- \*De Laughter, Mrs. Nellie M., catgr. St. Louis Pub. Lib.
- Deneke, Mrs. S. F., Fredericktown
- Detchmندی, Edna, Paseo Br., Kansas City Pub. Lib.
- Ditchfield, Muriel, St. Louis Pub. Lib.
- \*Doane, Bertha, In. Cabanne Br., St. Louis Pub. Lib.
- \*Doty, Gladys N., In. Benton Br., St. Louis Pub. Lib.
- \*Drury, Mrs. Gertrude G., in charge Traveling Lib. Dept., St. Louis Pub. Lib.
- \*Duemler, Mrs. Kathryn Barnes, 1013a Art Hill Place, St. Louis
- Durden, Olive M., In. Sumner High Sch., St. Louis
- Edwards, Mrs. Helen H., part-time asst. In. Slater Pub. Lib.
- \*Edwards, Ward, In. Central Mo. State Teachers Coll. Lib., Warrensburg
- \*Elliott, Mrs. Ada M., Ref. In. Univ. of Mo. Lib., Columbia
- Ellis, Miriam S., asst. child. In. Carpenter Br., St. Louis Pub. Lib.
- Elsae, Mrs. Caroline H., In. Moberly Pub. Lib.
- English, Mary Kay, 1st asst. In. Sedalia Pub. Lib.
- \*Ensign, Mary E., chief Binding and Repair Dept., St. Louis Pub. Lib.
- \*Enzinger, Marie, asst. catgr. St. Louis Pub. Lib.
- \*Farrington, Josephine B., 1st asst. to supv. child. work, St. Louis Pub. Lib.
- \*Fate, Clara M., In. Northeast Br., Kansas City Pub. Lib.
- \*Fisse, Irene, In. Carpenter Br., St. Louis Pub. Lib.
- \*Fletcher, Mildred S., ref. asst. Washington Univ. Lib., St. Louis
- \*Folkes, Gertrude, asst. In. Carthage Pub. Lib.
- Ford, Harriette, asst. In. Central Mo. State Teachers Coll. Lib., Warrensburg
- Fox, Louise, St. Louis Pub. Lib.
- Freund, Mary Lloyd, asst. in charge of child. dept., Sedalia Pub. Lib.
- \*Friedman, Mrs. Fannie, sr. catgr. St. Louis Pub. Lib.
- \*Frodsham, Jane, In. Agri. Lib. Univ. of Mo., Columbia
- \*Gaisler, Norma E., 1st asst. Carondelet Br., St. Louis Pub. Lib.

- \*Gambrill, Georgia, asst. Ref. Dept., St. Louis Pub. Lib.
- \*Gearhart, Frances L., catlgr. Springfield Pub. Lib.
- Gentry, Mrs. Fay D., ln. Monroe Pub. Lib.
- \*Gentry, Irene, secy. and acting asst. to ln. Kansas City Pub. Lib.
- \*George, Mrs. Anne P., chief Periodical Reading Room, St. Louis Pub. Lib.
- \*Gibbany, Mrs. Eliza H., ln. Hickman Sr. High Sch., Columbia
- \*Gibson, Fern, asst. Central Mo. State Teachers Coll. Lib., Warrensburg
- \*Gifford, Wm. L. R., ln. Mercantile Lib. Ass'n., St. Louis
- Ginder, Irene, asst. Sedalia Pub. Lib.
- \*Givens, Mrs. Mildred B., catlgr. St. Louis Pub. Lib.
- Gordon, Mrs. Rose B., asst. ln. Central High Sch., Cape Girardeau
- \*Graham, Mrs. Aurevia P., asst. Acquisitions Dept. Univ. of Mo. Lib., Columbia
- \*Grataaa, Josephine, ln. St. Louis Univ. Br., St. Louis Pub. Lib.
- \*Grindon, Dorothy, 1st asst. Soulard Br., St. Louis Pub. Lib.
- Grover, Rosemary, Westport Br., Kansas City Pub. Lib.
- \*Gulick, Mrs. Josephine S., 1st asst. Registration Dept., St. Louis Pub. Lib.
- \*Hackmann, Phyllis, loan and ref. asst. Mo. School of Mines and Metallurgy Lib., Rolla
- Hall, Virginia, 5539 Page Ave., St. Louis
- Hammond, Ida May, Research Dept. Lib. Ralston Purina Co., St. Louis
- Hanna, Mrs. Frances McKee, secy. to ln. Univ. of Mo. Lib., Columbia
- \*Harrison, Katherine B., child. ln. Buder Br., St. Louis Pub. Lib.
- \*Hasting, Eleanor R., catlgr. Washington Univ. Lib., St. Louis
- \*Hearn, Mrs. Clara, business ln. Kansas City Pub. Lib.
- \*Hedges, Elizabeth, ln. Westminster Coll. Lib., Fulton
- Heiderstadt, Dorothy, asst. Northeast Br., Kansas City Pub. Lib.
- Heintze, Richard W., Concordia Seminary, St. Louis
- Helm, Florence, Webb City Pub. Lib.
- \*Helston, Mrs. Marjorie R., 8 Shaw Place, St. Louis
- Herbert, Mrs. Mary B., ln. Mark Twain Br., Kansas City Pub. Lib.
- Hier, Blanche, St. Louis Pub. Lib.
- \*Hill, Grace, head catlgr. Kansas City Pub. Lib.
- \*Hinkley, Mary Elizabeth, 1225 N. Broadway Ave., Springfield
- Hinn, Mrs. Carl, 107 W. Broadway, Excelsior Springs
- \*Hoberecht, Mrs. Leota M., ln. Kemper Military School, Boonville
- \*Hoffmann, Paula, ln. Washington Pub. Lib.
- \*Holmes, Abigail, child. ln. Barr Br., St. Louis Pub. Lib.
- Holtzclaw, Mrs. Richard, ln. Macon Pub. Lib.
- Hook, Ethel, dir. of libs. Northeast Mo. State Teachers Coll., Kirksville
- \*Hopkins, Roberta, asst. Soulard Br., St. Louis Pub. Lib.
- \*Horine, Harriet M., ln. Springfield Pub. Lib.
- Horner, Alice, head catlgr. Washington Univ. Lib., St. Louis
- \*Houston, Tine C., ln. Mexico Pub. Lib.
- \*Howard, Paul, ln. Mo. Sch. of Mines and Metallurgy Lib., Rolla
- \*Hudson, Grace F., chief of staff, Kansas City Pub. Lib.
- \*Hukill, May, ln. Pub. Sch. Lib., Carthage
- \*Huning, Annalil, 1st asst. Sherman Park Br., St. Louis Pub. Lib.
- \*Hurry, Mrs. Jane A., ln. Engineering Lib. Univ. of Mo., Columbia
- \*Hyle, Dorothea F., adult asst. Central High Sch. Br., Kansas City Pub. Lib.
- Jackson, Elizabeth, St. Louis Pub. Lib.
- \*Jaeger, Ann C., asst. auditor, St. Louis Pub. Lib.
- Janis, Margaret M., asst. Carpenter Br., St. Louis Pub. Lib.
- \*Johnson, B. Lamar, ln. and dean of instruction, Stephens College, Columbia
- Jordan, Gamble, Law Library Ass'n, St. Louis
- \*Joss, Evelyn Lenore, ln. Monsanto Chemical Co. Lib., St. Louis
- \*Kalis, Esther Sperling, asst. Westport Br., Kansas City Pub. Lib.
- Kenkel, Frederick P., 3835 Westminster Place, St. Louis
- \*Kent, Sadie T., ln. Southeast Mo. State Teachers Coll. Lib., Cape Girardeau
- \*Key, Mrs. Lutie P., ln. and head of publicity, Cottey Junior Coll., Nevada
- \*Key, Gladys R., St. Joseph Pub. Lib.
- Kleinsorge, Sister Mary V., C. P. P. S., ln. and part-time teacher, St. Elizabeth Academy, St. Louis
- Knipmeyer, Gilbert, Mo. Sch. of Mines and Metallurgy Lib., Rolla
- \*Koetter, Stella Marie, asst. Carpenter Br., St. Louis Pub. Lib.
- \*Kohl, Julia F., Harris Teachers Coll., St. Louis
- Kreeger, Mary, ln. and secy. to dean, Bible Coll. of Mo., Columbia
- Lamm, Nettie R., asst. Sedalia Pub. Lib.

- \*La Pierre, Adelaide, asst. In. Southeast Mo. State Teachers Coll. Lib., Cape Girardeau
- Leibold, Merle E., Hertzberg Bindery, Des Moines, Iowa
- \*Lindsay, Mrs. J. L., Poplar Bluff Pub. Lib.
- \*Linneman, Kathryn M., In. St. Charles Pub. Lib.
- Low, Edith, Bonne Terre Pub. Lib.
- Lynch, Helen A., St. Louis Pub. Lib.
- \*McAllister, Olive, In. Marceline Pub. Lib.
- \*MacBeth, Mary, asst. Ref. Dept., Kansas City Pub. Lib.
- McConnell, Rev. Brendan, C. P., In-teacher, Passionist Preparatory Seminary, Normandy
- \*McCurdy, Helen, asst. Southwest Br., Kansas City Pub. Lib.
- McDonald, Kathleen, In. State Hospital No. 2, St. Joseph
- McDonald, Margaret M., 1st asst. Crunden Br., St. Louis Pub. Lib.
- McFadden, Mrs. F. Lois, In. Hamilton Pub. Lib.
- McGinnis, Miriam, Tarkio, Mo.
- McKinney, Mrs. Anna, In. Excelsior Springs Pub. Lib.
- \*McLean, Lillian, Southwest Br., Kansas City Pub. Lib.
- \*McNabb, Katherine C., 1st asst. Catalog Dept., Kansas City Pub. Lib.
- \*Magee, Marion A., asst. In. Springfield Pub. Lib.
- \*Maggoon, Edith, 1st asst. Circ. Dept., St. Louis Pub. Lib.
- \*Manlove, Ruth Thorpe, asst. Ref. Dept., St. Louis Pub. Lib.
- \*Manning, Mrs. Eleanor B., In. Webster Groves Pub. Lib.
- Marlin, Jessie, In. Tarkio College, Tarkio
- Martin, Mrs. D. H., Salisbury Pub. Lib.
- Maske, Mrs. J. D., In. Poplar Bluff Pub. Lib.
- \*May, Gertrude D., In. Soldan High Sch., St. Louis
- \*Meeks, Mrs. Mary E., asst. child. In. Westport Br., Kansas City Pub. Lib.
- \*Mellette, Laura M., In. Smith Cotton High Sch., Sedalia
- Merrill, Jean A., Kansas City Pub. Lib.
- Mezger, W. L. A. C. McClurg & Co., Chicago
- \*Millener, Mrs. Jessie S., chief Document Dept., Kansas City Pub. Lib.
- \*Mobberly, Alice Dean, asst. Springfield Pub. Lib.
- \*Molony, Sarah S., head Circ. Dept., St. Joseph Pub. Lib.
- \*Moody, Katharine T., chief Ref. Dept., St. Louis Pub. Lib.
- \*Morey, Jane, In. Pub. Lib., Duluth, Minn.
- Morrow, Helen, Order Dept., Kansas City Pub. Lib.
- Murray, Zella M., In. Senior High Sch., University City
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 St. Louis Pub. Lib.  
 Ross, Helen D.  
 Ross, Mary, child. In. Blue Valley Br.  
 Lib. and asst. In. East High Sch.  
 Lib., Kansas City  
 Roskopf, Mrs. Virginia M.  
 Sampson, Julia E., In. Journalism Lib.  
 Univ. of Mo., Columbia  
 Sanders, Hazel  
 Sanderson, Elizabeth W.  
 Sandusky, Clara W., asst. (substitute),  
 Kansas City Pub. Lib.  
 Savander, Ina M., asst. Carondelet Br.,  
 St. Louis Pub. Lib.  
 Sawyer, Mrs. Harriet P.  
 Saylor, Cerilla E.  
 Schaller, Sister M. Caecilia, C. P. P. S.,  
 In. St. Mary's Junior Coll. Lib.,  
 O'Fallon  
 Schaperkotter, Dorothy, child. In. Divoll  
 Br., St. Louis Pub. Lib.  
 Scholz, Rev. Bede  
 Scudder, Marian G.  
 Settle, Mrs. R. W.  
 Severance, H. O.  
 Schackelford, Emma N.  
 Shallcross, Eleanor C.  
 Sharp, Juva Z.  
 Sheetz, Marjorie  
 Shoemaker, Floyd C.  
 Shortridge, Martha  
 Shouse, Harriet  
 Simms, Alma D., asst. Circ. Dept., St.  
 Louis Pub. Lib.  
 Simms, Myra, child. In. St. Louis Pub. Lib.  
 Skelton, John T.  
 Smith, Idris, adult asst. West Br. Lib.,  
 Kansas City Pub. Lib.  
 Snider, F. E.  
 Snow, Mae  
 Spencer, Claude E., In. Culver-Stockton  
 Coll. Lib., Canton  
 Stanton, Marie J.

- Staples, Virginia E., asst. Stations Dept.,  
     St. Louis Pub. Lib.  
 Stark, Mrs. Martha K.  
 Stratton, Frances G., ln. Training Sch.,  
     Central Mo. State Teachers Coll.,  
     Warrensburg  
 Summersby, Elizabeth  
 Swank, Dorothy N. E.  
 Swenson, Mrs. Carl A.  
 Tadlock, Ethel  
 Testerman, Mrs. Lula V.  
 Thomas, Marie  
 Todd, Ann  
 Tomczak, Agnes M., catlgr. St. Louis  
     Univ. Lib.  
 Toomey, Loretta, ln. Buder Br., St. Louis  
     Pub. Lib.  
 Torrey, Margaret I., ln. Mercer County  
     Lib., Princeton  
 Trigg, Blanche  
 Trowbridge, Jean  
 Ulrici, Dorothy M., Reserve Room asst.  
     Washington Univ. Lib., St. Louis  
 Van Guest, Marianne, asst. St. Louis  
     Pub. Lib.  
 Wade, Florence De Bord, ln. Washington  
     Br., Kansas City Pub. Lib.  
 Waldron, Alice M.  
 Warren, Ruth A., 1st asst. Art Dept.,  
     St. Louis Pub. Lib.  
 Watson, Inez, asst. Catalog Dept., Kansas  
     City Pub. Lib.  
 Webb, Mrs. Clara B.  
 Webb, Maria M.  
 Wegman, Kathryn, 1st asst. Divoll Br.,  
     St. Louis Pub. Lib.  
 Wegman, Margaret, asst. Readers Ad-  
     visory Service, St. Louis Pub. Lib.  
 Weis, Eunice A., ln. Baden Br., St. Louis  
     Pub. Lib.  
 Weis, Norma G., child ln. Crunden Br.,  
     St. Louis Pub. Lib.  
 Weiss, Sister M. Antoinette, teacher,  
     registrar & ln. Assumption High Sch.,  
     O'Fallon  
 Weitkamp, Ethel  
 Welch, Ruth A., asst. Order Dept.,  
     Kansas City Pub. Lib.  
 Welge, Anita E., catlgr. Washington Univ.  
     Lib., St. Louis  
 Welker, Elizabeth H., asst. to ln. & head  
     of Order Dept., Washington Univ.,  
     St. Louis  
 Wells, C. Edwin  
 Welman, Mildred  
 Werby, Minnie  
 West, Martha, asst. Teachers Room, St.  
     Louis Pub. Lib.  
 White, Bon-Jean  
 White, Grace M., asst. catlgr. Kansas  
     City Pub. Lib.  
 White, Jane N.  
 Whiteford, Margaret  
 Williams, Dorothy B., Formerly at  
     Wellston High Sch. Lib.  
 Williams, Gertrude, child. ln. Stix Br., St.  
     Louis Pub. Lib.  
 Williams, Mrs. Leone D., asst. ln. Car-  
     negie Br., St. Joseph Pub. Lib.  
 Williams, Virginia Stewart, student asst.  
     Poplar Bluff Pub. Lib.  
 Willis, Lelia B.  
 Wilson, Mildred L., child. ln. Springfield  
     Pub. Lib.  
 Wine, Naomi Eloise, ln. Tarkio Pub. Lib.  
 Winfrey, Julia T., asst. Kirkwood Pub.  
     Lib.  
 Wittrock, Marie E., part-time asst. Circ.  
     Dept., St. Louis Pub. Lib.  
 Woods, Florence G., ln. Christian Coll.  
     Lib., Columbia  
 Woodson, Blanche E., sr. catlgr. St. Louis  
     Pub. Lib.  
 Wright, Madonna  
 Wright, Mary Eleanor  
 Wright, Purd B.  
 Young, Elizabeth J., Pub. Lib. and His-  
     torical Assn., Lexington  
 Young, Mrs. Grace M.



## PUBLIC LIBRARIES ESTABLISHED 1915-1935

1915-1929

In the first fifteen years 52 libraries were opened for service:

Appleton City.....	1924	Kirkwood.....	1924
Aurora.....	1919	Lexington.....	1919
Bethany.....	1921	Macon.....	1916
Bloomfield.....	1915	Marceline.....	1920
Bolivar.....	1915	Monett.....	1926
Boonville.....	1923	Monroe City.....	1918
Braymer.....	1916	Montgomery.....	1927
Brookfield.....	1915	Mountain Grove.....	1924
Brunswick.....	1915	New London.....	1926
Bucklin.....	1928	Overland.....	1929
Butler.....	1926	Paris.....	1915
Canton.....	1929	Platte City.....	1928
Cape Girardeau.....	1922	Poplar Bluff.....	1916
Carrollton.....	1928	Prairie Home.....	1922
Caruthersville.....	1923	Princeton.....	1927
Chaffee.....	1929	Richmond.....	1917
Chillicothe.....	1921	Salisbury.....	1915
Clinton.....	1927	Shelbina.....	1918
Eldon.....	1925	Sikeston.....	1929
Excelsior Springs.....	1916	Slater.....	1927
Farmington.....	1915	Tarkio.....	1921
Grant City.....	1922	Troy.....	1929
Hamilton.....	1921	Unionville.....	1922
Higginsville.....	1928	Washington.....	1924
Houston.....	1921	Webster Groves.....	1928
Jackson.....	1926	Weston.....	1925

1930-1935

In the six years during the depression, 1930-1935, the following 46 public libraries were organized:

Blue Springs.....	1934	Liberty.....	1934
Branson.....	1933	Malden.....	1932
Buckner.....	1934	Mount Vernon.....	1934
Camdenton.....	1934	Neosho.....	1934
Campbell.....	1933	Norborne.....	1932
Cardwell.....	1933	Oak Grove.....	1934
Charleston.....	1930	Osceola.....	1934
Clarksdale.....	1935	Parma.....	1935
Dexter.....	1935	Richmond Heights.....	1933
Doniphan.....	1934	Rolla.....	1935
Eldorado Springs.....	1934	Ste. Genevieve.....	1934
Ellington.....	1934	St. James.....	1930
Festus.....	1935	Salem.....	1930
Flat River.....	1934	Sibley.....	1934
Fredericktown.....	1934	Steele.....	1933
Graham.....	1934	Steelville.....	1935
Grandview.....	1934	Stewartsville.....	1934
Greenfield.....	1932	Stoutland.....	1934
Kahoka.....	1932	Sugar Creek.....	1934
Kennett.....	1930	Sullivan.....	1934
Kirksville.....	1932	Van Buren.....	1932
La Grange.....	1932	Vandalia.....	1934
Lee's Summit.....	1932	Whiteside.....	1934

These libraries have a total book collection of 313,258 volumes which have been made available for use in addition to the annual accumulation of the libraries established before 1915.

## TAX SUPPORTED PUBLIC LIBRARIES

Place	Librarian	Pop- ula- tion (1930)	Date found- ed	No. of vol- umes	Circulation			Expenditure			Per Capita				
					Average annual	No. yrs. in av.	Last year	Average annual	No. yrs. in av.	Last year	Vol- umes	Av. circ.	Circ. last year	Av. exp.	Exp. last year
Albany	Mrs. Anita Atherton	1,858	1905	8,096	15,252	8	12,222	\$1,764.96	10	\$1,234.86	4.36	8.21	6.58	.949	.665
Albany	Mrs. Anita Atherton	1,858	1905	8,096	15,252	8	12,222	\$1,764.96	10	\$1,234.86	4.36	8.21	6.58	.949	.665
Aurora	Mary Jane Stratton	3,875	1919	5,422	21,404	9	32,125	1,451.15	10	1,731.17	1.40	5.52	8.29	.374	.447
Bolivar	Grace McDaniel	2,256	1915	6,026	15,144	10	18,752	1,450.41	10	1,247.41	2.67	6.71	8.31	.643	.553
Brookfield	May Snow	6,428	1915	11,228	33,736	10	40,390	4,064.53	10	3,936.78	1.75	5.25	6.28	.632	.612
Canton	Mary E. Alderton	2,044	1929	3,300	17,924	4	19,811	1,576.99	4	1,008.89	1.61	8.77	9.69	.772	.494
Cape Girardeau	Lenore Raftery	16,227	1922	15,424	68,774	7	77,502	6,163.46	10	6,082.54	0.95	4.24	4.78	.380	.398
Carthage	Jessie Stemmmons	9,736	1904	17,206	70,832	10	87,008	5,804.52	10	4,851.42	1.77	7.28	8.94	.596	.475
Caruthersville	Louise Helm	4,781	1923	7,001	20,109	4	19,293	2,114.79	7	825.85	1.46	4.21	4.04	.442	.173
Chaffee	Lela M. Langford	2,902	1929	2,045	13,279	5	15,353	3,65.18	4	320.67	0.70	4.58	5.29	.126	.110
Columbia	Pearl Clarkson	14,967	1900	13,392	50,226	10	71,928	5,848.00	10	6,645.85	0.89	3.36	4.81	.391	.444
Doniphan	Mrs. Alma O. Doherty	1,398	1934	3,066	11,296	1	11,296	258.61	6	424.60	0.54	3.56	3.56	.082	.134
Eldon	Grace Mennell	3,171	1925	1,712	23,199	10	28,732	2,930.99	10	2,444.23	1.51	5.52	6.29	.355	.432
Excelsior Springs	Mrs. Anna McKinney	4,563	1916	6,901	14,197	7	15,363	754.91	10	651.85	1.42	4.73	5.52	.250	.217
Farmington	Myra Robbins	3,001	1915	4,432	14,997	7	15,363	754.91	10	651.85	1.42	4.73	5.52	.250	.217
Fayette	Alfred P. Warren	2,954	1914	9,632	3,294	8	6,641	1,289.52	7	1,246.30	0.60	3.53	2.53	.450	.474
Fredericktown	Mrs. S. P. Dencke	2,105	1908	9,659	23,184	10	26,229	2,763.14	10	1,707.06	1.58	3.80	4.30	.453	.280
Fulton	Sallie Coon	1,572	1921	9,255	16,669	10	16,906	930.62	10	630.23	5.89	10.60	10.75	.592	.401
Hamilton	Mrs. Lois M. McFadden	2,761	1921	9,255	16,669	10	16,906	930.62	10	630.23	5.89	10.60	10.75	.592	.401
Hamilton	Helen D. Birch	22,661	1871	25,236	106,138	10	139,751	7,777.02	10	8,248.17	1.11	4.40	6.14	.342	.362
Hartsville	Mrs. Hobbs Heether	1,897	1905	3,235	16,498	9	15,159	1,223.77	10	1,004.59	1.11	8.70	7.99	.645	.551
Independence	Carrie Wallace	15,296	1894	10,228	35,980	5	34,330	2,788.32	8	2,086.75	0.67	2.35	2.24	.182	.136
Jackson	Bess Litzelner	2,465	1926	5,879	35,909	7	40,344	1,943.26	7	1,915.49	2.38	14.57	16.37	.788	.777
Jefferson City	Julia Andrae	21,596	1893	19,888	64,594	10	98,540	6,999.90	10	10,062.70	0.92	2.99	4.56	.324	.466
Kansas City	Blanche Trigg	33,454	1902	59,219	218,324	10	226,978	15,175.47	8	23,552.17	1.39	6.53	6.78	.454	.599
Kansas City	Purd B. Wright	9,169	1924	12,364	2,087,355	10	2,426,096	287,782.67	10	12,582.80	1.77	5.22	6.09	.707	.444
Kirkwood	Mrs. Eugene M. Becker	9,169	1924	12,364	2,087,355	10	2,426,096	287,782.67	10	12,582.80	1.77	5.22	6.09	.707	.444
Louisiana	Elizabeth Irwin	3,549	1905	7,992	13,675	10	16,872	1,823.87	10	1,131.74	2.25	3.85	4.75	.514	.319
Marceline	Mrs. Richard Holtzclaw	3,851	1916	9,751	43,482	10	67,171	2,429.20	10	2,068.76	2.53	11.29	17.44	.631	.537
Marion	Olivia McAllister	3,555	1920	7,558	28,661	10	32,433	2,224.79	10	2,036.01	2.13	8.06	9.12	.626	.573
Marshallfield	Ella Dickey	1,378	1911	3,795	18,819	10	19,437	773.77	10	616.69	2.75	13.66	14.11	.562	.448
Maryville	Grace Langan	5,217	1904	11,387	19,900	10	17,026	3,140.36	10	2,322.70	1.18	3.81	3.26	.602	.620
Mexico	Tine C. Houston	8,290	1916	16,220	33,454	10	41,549	2,771.36	10	2,622.55	1.96	4.04	5.01	.334	.316
Monett	Mrs. Carrie Eisea	13,772	1901	13,975	63,551	10	92,554	4,799.53	10	4,898.85	1.01	4.61	6.72	.348	.356
Monroe City	Mrs. R. A. Orr	4,099	1926	8,037	45,916	7	52,923	1,440.13	4	1,497.07	1.96	11.20	12.91	.351	.365
Montgomery	Mrs. Fay D. Gentry	1,820	1918	5,025	16,941	8	21,493	1,662.25	10	1,484.64	2.76	9.31	11.81	.913	.816
Montgomery	Edwina Owings	1,510	1927	3,078	8,393	10	10,732	935.56	6	872.48	2.04	5.56	7.11	.620	.578
Mound City	Ida Atkins	1,525	1909	4,185	10,010	7	10,815	1,027.05	6	875.70	2.74	6.62	7.09	.673	.574
Nesho	Sallie Stewart	4,485	1934	2,650	27,153	10	29,003	2,891.36	8	2,155.95	0.59	3.65	3.89	.388	.289
Nevada	Mrs. Ann Williams	7,448	1900	6,700	13,555	10	20,609	2,176.08	10	2,205.68	0.90	9.91	15.08	.159	.164
Paris	Mayme Craig	1,367	1915	6,146	3,080	1	3,080	60.00	1	60.00	0.93	2.71	2.71	.053	.053
Pierce City	Mrs. Floyd R. Duncan	1,135	1915	1,050	3,080	1	3,080	60.00	1	60.00	0.93	2.71	2.71	.053	.053
Poplar Bluff	Mrs. Catherine Maske	7,551	1916	14,486	75,294	9	91,302	5,305.18	10	4,953.56	1.92	9.97	12.09	.703	.656

[illegible]

## NON-TAX SUPPORTED PUBLIC LIBRARIES

Place	Librarian	Pop- ulation found- (1930)	Date found- ed	No. of vol- umes	Circulation		Expenditure		Per Capita				
					Average annual av.	No. yrs. in av.	Last year	Average annual av.	No. yrs. in av.	Last year	Vol- umes	Av. circ.	Circ. year
Appleton City	Ada Laney	1,136	1924	2,775	9	6,058	\$287.92	8	\$112.35	4.95	5.33	.253	.099
Appleton*	Mrs. Edwin M. Cronson	2,709	1921	5,621	9	8,232	403.90	10	439.30	2.95	3.73	.183	.199
Bloomfield*	-----	1,023	1915	7,474	-----	-----	31.77	3	25.00	0.78	-----	.031	.024
Blue Springs	Loraine Petty	706	1934	324	-----	-----	-----	-----	-----	0.46	-----	-----	-----
Bonne Terre	Edith Low	4,021	1905	17,905	10	26,598	1,139.88	2	1,300.13	1.02	6.61	.283	.323
Boonville	Mrs. G. A. Russell	6,435	1923	2,796	7	12,513	505.18	10	546.90	0.43	1.71	.079	.085
Bowling Green	Mrs. W. P. Hawkins	1,855	1899	2,449	1	2,449	96.39	1	96.39	1.05	1.32	.052	.052
Branson	Mrs. Arthur Janicke	958	1933	3,130	1	3,130	68.78	1	68.78	0.57	3.28	.072	.072
Braymer	Lizzie Hughes	933	1916	3,186	6	3,089	80.15	4	41.87	1.21	3.41	.086	.084
Brunswick	-----	1,715	1915	4,500	2	1,022	144.00	1	144.00	0.26	0.06	.084	.084
Bucklin	Mrs. Emma Shoemaker	932	1928	2,400	1	2,400	10.00	1	10.00	1.34	2.58	.011	.011
Butler	Mrs. W. E. Gesler	529	1934	148	-----	-----	-----	-----	-----	-----	-----	344	.345
Butler	Fannie B. Kerr	2,706	1926	5,888	3	27,453	930.87	5	934.82	2.18	10.22	10.15	-----
Canby	Married Blood	706	1936	27,642	-----	-----	-----	-----	-----	-----	-----	-----	-----
Camden*	Mrs. E. G. Claiborn	706	1934	-----	-----	-----	-----	-----	-----	1.16	1.37	1.37	-----
Camden	-----	3,507	1907	4,800	1	4,800	-----	-----	1.00	0.63	1.01	1.01	-----
Campbell	Mrs. H. M. Aulsebury	1,592	1933	1,002	1	1,600	-----	-----	0.92	0.87	0.87	.051	.051
Cardwell	Martha Sue Johnson	4,861	1928	746	1	746	44.00	1	44.00	0.07	0.05	.005	.005
Carrollton	-----	4,058	1928	300	200	200	None	-----	None	0.07	0.05	.005	.005
Centralia	Lenora Kirk	2,009	1903	1,650	2	1,800	163.67	3	227.00	1.38	0.82	0.90	.081
Charleston*	Frances McFadden	3,357	1930	2,633	3	5,040	281.98	1	281.98	0.78	1.36	1.50	.084
Chillicothe*	Mrs. Olive Davis	8,177	1921	22,940	10	20,804	1,175.36	8	1,291.47	0.99	2.81	2.54	.158
Clarksdale	-----	302	1935	230	-----	-----	-----	-----	-----	0.76	-----	-----	-----
Clarksville	Mrs. Nellie B. Smith	739	1898	1,658	4	1,706	255.99	9	169.29	3.10	2.24	3.31	.229
Clinton	Katherine Day	5,744	1927	3,423	5	17,820	732.31	4	992.19	0.60	2.42	3.10	.173
Delodge	-----	2,568	1934	13,916	-----	-----	-----	-----	-----	0.29	-----	-----	-----
Dexter	Mrs. R. B. Lester	2,714	1935	800	-----	-----	-----	-----	-----	0.27	-----	-----	-----
Dexter	Mrs. T. B. Bredlinger	1,957	1927	527	-----	-----	-----	-----	-----	1.53	-----	-----	-----
El Dorado Springs*	Marion Shannon	1,917	1934	1,000	3	520	-----	-----	0.18	0.23	0.23	-----	-----
Ellington	Salina McHenry	655	1929	590	-----	-----	-----	-----	0.23	0.23	0.23	-----	-----
Eolia	Mary O. Meniwether	565	1909	1,175	-----	-----	-----	-----	0.19	0.19	0.19	-----	-----
Festus	Alice Blackwell	4,083	1935	750	-----	-----	-----	-----	0.46	0.46	0.46	-----	-----
Flat River	Mrs. P. G. Keith	5,112	1934	1,200	1	2,280	-----	9	429.00	0.63	0.89	.223	.304
Gideon	-----	1,315	1930	360	10	922	314.31	9	429.00	0.51	1.73	1.73	-----
Glasgow	Mrs. C. S. Peacocke	1,409	1866	6,000	-----	-----	-----	-----	0.51	0.51	0.51	.296	.219
Graham	Mrs. John Geyer	347	1934	220	-----	-----	-----	-----	0.32	4.01	2.47	.296	.219
Grandview	Frances M. Dagg	707	1934	363	5	1,814	44.93	2	59.00	0.86	3.61	.144	.074
Grant City	Kate M. Lewis	1,126	1922	2,804	6	12,141	479.19	6	248.20	0.86	3.61	.144	.074
Greenfield	Mrs. N. H. McCall	1,304	1932	418	1	1,927	46.70	1	17.66	1.42	3.86	.279	.068
Harrisonville*	Merle Gray	2,306	1928	1,108	3,000	3,000	30.00	5	30.00	0.75	1.99	.999	.020
Higginsville	Leona B. Hiett	3,339	1928	2,875	1	3,000	30.00	1	30.00	1.42	3.86	.279	.068
Houston	Mrs. Ivy Y. Roberts	690	1921	977	1	3,000	30.00	1	30.00	1.42	3.86	.279	.068
Kanoka	Leona B. Hiett	1,507	1932	1,124	2	23,982	508.33	3	751.78	1.12	5.64	5.81	.182
Kennett	Mrs. Ella Stevenson	4,128	1930	4,622	2	23,982	508.33	3	751.78	1.12	5.64	5.81	.182
Kennett	Mrs. Ethel Johnson	8,293	1931	23,282	2	25,737	489.48	2	679.21	0.70	3.39	3.10	.059
Kirksville	Mrs. Belle T. McCallan	8,293	1932	28,126	2	25,737	489.48	2	679.21	0.70	3.39	3.10	.059



La Grange.....	1,160	1,932	1,991	4,396	3	2,874	139,88	1	139,88	1.72	3.79	2.48	121
Lebanon.....	3,562	1896	3,729	7,172	10	9,000	63,68	10	25,52	1.05	2.01	2.53	.007
Lee's Summit*.....	2,035	1919	1,731	7,172	1	7,176	152,48	1	152,48	0.85	3.53	3.53	.075
Lexington.....	4,595	1919	7,067	9,995	10	12,977	659,56	10	427,81	1.54	2.18	2.82	.144
Liberty.....	3,516	1934	2,811	6,283	1	6,283	133,00	1	133,00	0.23	3.10	3.10	.066
Malden.....	2,035	1934	2,111	1,404	10	1,046				0.81	0.60	0.61	
Memphis.....	1,738	1906	1,852	1,039						0.63			
Mount Vernon.....	1,342	1934	1,404	1,039						0.63			
Mountain Grove.....	2,229	1924	1,962	3,193	3	2,865	25,43	5	10,04	0.88	1.43	1.29	.011
New London.....	1,900	1926	2,000	2,687	6	5,157	28,99	2	10,00	2.22	2.99	5.73	.032
Norborne.....	1,190	1932	943	6,075	2	3,390	143,66	2	141,23	0.79	5.11	2.85	.119
Oak Grove.....	1,043	1934	1,487	4,021	1	4,021	40,65	1	40,65	1.43	3.86	3.86	.039
Oceola.....	15,000	1929	4,500	12,902	1	12,902	178,49	1	178,49	0.86	0.86	0.86	.012
Overland*.....	1,967	1908	3,000							1.54			
Palmyra.....	1,051	1925	600							0.57			
Parma.....	1,587	1928	368							0.63			
Platte City.....	2,330	1922	850	3,300	2	3,600	(None)		(None)	0.36	1.42	1.55	.000
Pleasant Hill.....	2,69	1927	1,000	750	1	750				3.71	2.78	2.78	.000
Prairie Home.....	1,509	1927	2,000	1,800	1	1,800	55,00	1	55,00	1.33	1.19	1.19	.036
Princeton.....	4,129	1917	4,107	8,994	9	8,401	251,97	4	180,00	0.99	1.96	2.03	.044
Richmond.....	9,150	1933	3,800	17,000	1	17,000	122,50	1	122,50	0.41	1.85	1.85	.013
Rolla*.....	3,670	1935	1,000							0.27	6.44	6.44	.051
Saint James.....	1,294	1930	1,568	8,333	4	8,807	65,71	3	208,44	1.21	6.44	6.81	.161
Saint Joseph.....	2,662	1934	1,112	6,220	1	6,220	181,85	1	181,85	0.42	2.34	2.34	.068
Sainte Genevieve.....	2,250	1930	1,106	6,330	3	7,000	73,06	2	74,00	0.49	2.81	3.11	.032
Salina.....	1,768	1915	1,600	2,454	1	2,454	286,77	5	100,00	0.90	1.39	1.39	.162
Salisbury.....	1,888	1912	6,000	8,832	2	9,916	1,037,50	2	860,00	3.18	4.68	5.25	.456
Savannah.....	350	1934	191							0.55			
Sikeston*.....	5,676	1929	2,648	4,310	5	5,434	361,68	6	197,05	0.47	0.76	0.96	.035
St. Louis.....	1,219	1933	757	1,186	1	1,186	39,98	1	39,98	0.62	0.97	0.97	.033
Steelville.....	854	1935	500							0.59			
Stewartville.....	520	1934	488							0.94			
Stoutland.....	214	1934	386							1.80			
Sugar Creek.....	1,657	1934	1,000							0.30			
Sullivan*.....	2,013	1934	1,000							0.50			
Trenton.....	6,992	1889	11,268	16,465	6	14,933	2,522,74	9	1,781,00	1.61	2.35	2.14	.255
Troy.....	1,419	1929	1,700	2,400	1	2,400	38,72	1	38,72	1.20	1.69	1.69	.027
Unionville.....	1,811	1932	3,314	11,590	4	14,027	184,58	4	219,90	1.83	6.40	7.75	.102
Van Buren*.....	345	1932	988	1,601	3	1,409	131,09	2	21,41	2.86	1.74	4.08	.038
Vandalia.....	2,450	1934	1,500	2,000	1	2,000	(None)	1	(None)	0.61	0.08	0.08	.000
Versailles*.....	1,662	1907	3,000	1,300	1	1,300	60,00	1	60,00	1.81	0.78	0.78	.035
Warrensburg.....	5,146	1908	5,497					7	433,50	1.07	0.97		.084
Weston.....	1,028	1925	1,000							0.97			
White*.....	119	1934	75							0.63			

\*Population estimated.

## UNIVERSITY AND COLLEGE LIBRARIES

City	Institution	Librarian	Enrollment (regular)	Books added	Total books	Approximate expenditure for books
Bolivar	Southwest Baptist College	Hattie E. Overstreet	302	78	5,460	\$24.98
Boonville	Temper Military Academy	Mrs. Rev. Robert			4,764	351.00
Cameron	Central Wesleyan College	Charles E. Spencer		17	11,993	37.50
Cape Girardeau	Cuba-Stoekert College	Sadie T. Kent	1,276	670	23,000	56,160
Cape Girardeau	State Teachers' College	Rev. Joseph G. Phoenix			6,350	500.00
Clayton	Chaminade College	N. J. Brost		250	8,350	300.00
Clayton	Concordia Theological Seminary	Richard W. Heintze		130	29,783	800.00
Columbia	Bible College of Missouri	Mary Kreeger		642	5,253	50.00
Columbia	Christian College	Florence Woods		74	7,805	475.00
Columbia	Stephena College	B. Lamar Johnson		2,450	14,000	4,900.00
Columbia	University of Missouri	Henry O. Severance	5,181	15,526	337,607	20,940.00
Conception	Conception College	Rev. Belle Scholz		400	8,666	500.00
Conception	Conception College	Rev. W. Spitz			250.00	
Dayton	Central College	H. C. P.	681	957	30,628	251.46
Flat River	Junior College & Senior High School	Emma N. Shackelford		321	7,199	700.00
Fulton	Westminster College	Elizabeth Hedges		664	20,410	400.00
Fulton	William Woods Junior College	Thelma Braik		81	189.45	
Hannibal	Hannibal-La Grange College	Mrs. Lloyd Foley		44	7,246	300.00
Iberia	Iberia Junior College	Dorothy Dearing			9,749	
Jefferson City	Junior College	Ivy C. Seaber		293	3,435	500.00
Jefferson City	Lincoln University	Lovey A. Anthony		1,002	13,090	3,242.08
Kansas City	College of Osteopathy and Surgery	Brother Jerome, F. S. C.		263	4,000	150.00
Kansas City	De La Salle Academy	Leonora B. Johnston			2,300	
Kansas City	College of Osteopathy and Surgery	Verth Ferguson		494	15,775	1,600.00
Kansas City	National Training School	Mary H. Smith		501	5,975	250.00
Kansas City	Rockhurst College	John J. McLaughlin		899	17,000	3,044.08
Kansas City	St. Theresa Junior College	Felicia P. Finck		156	6,075	504.39
Kansas City	Teachers College	Stella H. Pierson		365	8,980	550.00
Kansas City	University of Kansas City	Marjorie Copeland		1,603	5,940	2,500.00
Kidder	Junior College					
Kirkville	College of Osteopathy and Surgery	Claire F. Cram		297	2,435	2,430.00
Kirkville	State Teachers College	Ethel Hook		1,396	35,500	2,250.00
Lexington	Wentworth Military Academy	Mrs. E. H. Crieswell		150	6,400	800.00
Liberty	William Jewell College	J. C. Armstrong		402	40,476	496.48
Marion	Missouri Valley College	Stella B. Hicks		225	18,270	1,050.00
Marion	St. Edwards College	Edwin Wells		333	29,698	1,624.56
Meriden	Junior College	Edwin Wells		468	4,732	1,900.00
Monett	Junior College	Marjorie Copeland		208	3,100	310.00
Nevada	Cortey Junior College	Rev. P. K.		82	3,188	250.00
Nevada	Passionist Preparatory College	Rev. Brendan McConnell		310	3,855	350.00
O'Fallon	St. Mary's Junior College	St. M. Caecilia, C. P. S.		85	7,957	150.00
Parkville	Park College	Alice M. Waldron		544	26,761	1,041.89
Perryville	Saint Mary's Seminary	Wm. T. Powers		858	8,000	600.00
Rolla	School of Mines and Metallurgy	Paul Howard		2,448	43,000	3,900.00
St. Charles	Lindenwood College	Mildred D. Kohlstedt		721	17,604	1,150.00
St. Joseph	Central High School & Junior College	Grace W. Johnston		381	3,452	500.00
St. Louis	Genton College of Law	Grace W. Johnston		209	2,824	378.75
St. Louis	Pontbonne College	Eleanore A. Baer		434	10,726	469.93

## SPECIAL LIBRARIES

City	Institution	Librarian	Membership	Books added	Total books	Approximate expenditure for books
St. Louis	Harris Teachers College	Julia F. Kohl	443	477	13,171	934.00
St. Louis	Kenrick Theological Seminary	Rev. Leo P. Foley	180	2,000	40,000	300.00
St. Louis	Maryville College	Marie Odeide Mouton	110	225	10,597	400.00
St. Louis	St. Louis University	Rev. Henry H. Regnet	4,024	5,614	159,719	17,137.93
St. Louis	Washington University	Winthrop H. Cheney			295,249	
Springfield	Drury College	Wm. A. Daggett	508	1,275	54,090	2,100.00
Springfield	State Teachers College	Grace Palmer	2,160	2,160	34,674	2,300.00
Trenton	Union College	Jessie Martin	269	271	14,849	500.00
Trenton	Union College and High School	Wm. J. Fatterson			3,109	750.00
Warrensburg	State Teachers College	Ward Edwards	1,386	1,681	78,466	
Warrensburg	Central Wesleyan College				15,120	
Webster Groves	Eden Theological Seminary	Harold P. Schultz	91	17,463	32,000	1,400.00
Webster Groves	Webster College	St. M. Joseph		895	16,350	450.00
City	Institution	Librarian	Membership	Books added	Total books	Approximate expenditure for books
Columbia	State Historical Society of Missouri	Floyd C. Shoemaker	2,975	19,376	211,290	\$700.00
Excelsior Springs	Veterans' Administration Facility Library	Louisa W. Casey			1,185	
Jefferson Barracks	Veterans' Administration Facility Library	Edna H. Foley			5,334	
Jefferson City	Missouri State Library	A. J. Meuter		719	74,000	2,100.00
Jefferson City	Missouri Library Commission	Ruth O'Malley		149	35,271	168.99
Kansas City	Art Institute Library	Jessie Dickerson			21,970	1,500.00
Kansas City	Bar Library Association	Alice M. Smart		300	21,970	2,000.00
Kansas City	Court of Appeals Library	Rosa M. Hibbard		1,000	26,000	2,000.00
Kansas City	Jackson County Medical Society	Frances Askew			25,000	4,500.00
Kansas City	Wm. Rockhill Nelson Gallery of Art	Capitola Tinsley		100	460	600.00
St. Joseph	Court of Appeals Library				19,831	
St. Louis	Academy of Science—Housed in St. Louis Public Library	W. D. Shipton			4,000	
St. Louis	Bureau of Municipal Research	Mildred G. Taylor			6,500	
St. Louis	City Museum	Blanche A. Archambault			1,250	426.00
St. Louis	City College of Law and Finance	H. Fater	385	25	135.00	
St. Louis	Concordia Insurance Society	H. Brethier	539	88	660	
St. Louis	David Ranken, Jr. School of Mechanical Trades				3,000	245.00
St. Louis	Engineers' Club	Sarah J. Jones	902	50		
St. Louis	Law Library Association of St. Louis	Library is housed in the St. Louis Public Library				
St. Louis	Missouri Botanical Garden	Gamble Jordan	946	1,069	53,500	10,500.00
St. Louis	Missouri Historical Society	Nell C. Horner		2,406	48,553	
St. Louis	Municipal Historical Library	Stella M. Drumm			48,000	
St. Louis	Municipal Medical Library	Margaret A. Healy			5,000	
St. Louis	St. Louis Medical Society	Lily C. Hanvey	1,026	493	29,352	1,500.00
St. Louis	St. Louis Mercantile Library Association					
St. Louis	Teachers Library	W. L. Gifford		4,321	173,841	8,000.00
Springfield	Court of Appeals Library	Marie C. Ross	3,079		20,000	
Springfield		Mrs. Mildred M. Sharp			9,000	

LIBRARIES IN STATE ELEEMOSYNARY AND PENAL INSTITUTIONS

Fulton.....	Missouri School for the Deaf.....	G. C. Farquhar.....	360	None	3,000	None
Jefferson City.....	Algoa Farms.....	Wallace Culver.....	573	400	3,250	150.00
Jefferson City.....	Missouri State Penitentiary.....	Le Roy Munyon.....	4,678	None	5,000	None
St. Joseph.....	State Hospital No. 2.....	State Hospital Patient.....			2,546	

It was impossible to secure data on the following institutions but they are known to have small collections of books:

Boonville.....	Missouri Training School for Boys	Mount Vernon.....	Missouri State Sanatorium
Chillicothe.....	Industrial Home for Girls	Nevada.....	State Hospital No. 3
Farmington.....	State Hospital No. 4	St. James.....	State Federal Soldiers' Home of Missouri
Higginsville.....	Confederate Home of Missouri	St. Louis.....	Missouri Commission for the Blind

# THE UNIVERSITY OF MISSOURI BULLETIN

VOLUME 38, NUMBER 16

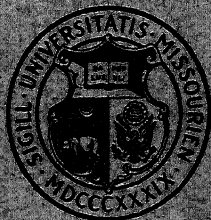
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LIBRARY SERIES NO. 19

## A Survey of the Resources of the University of Missouri Library for Research Work

By

HENRY O. SEYERANCE  
Librarian, University of Missouri



Columbia, Missouri

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ISSUED TWO TIMES MONTHLY; ENTERED AS SECOND-CLASS MATTER AT THE  
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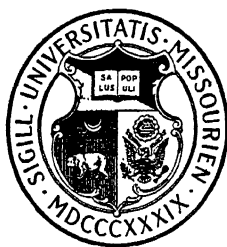
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# CONTENTS

Introduction	Page
Part I—General Classes	
Section 1. Bibliography.....	5
a. Library Catalogs.....	5
b. General Bibliographies.....	6
c. National Bibliographies.....	6
d. General Periodicals and Newspaper Indexes.....	6
e. Bibliographical Literature.....	7
f. Subject Bibliographies.....	7
Section 2. Dissertations.....	8
Section 3. Documents.....	9
State and Federal Documents.....	9
Foreign Documents.....	9
Section 4. Newspapers.....	10
Section 5. Periodicals.....	10
General Periodicals.....	10
Academy and Society Publications.....	11
Part 2—Special Subjects	
Section 1. Humanities.....	11
Language and Literature.....	11
a. American.....	11
b. English.....	12
c. German.....	15
d. French and Italian.....	16
e. Spanish.....	16
f. Classical.....	16
Folk lore.....	16
Fine Arts.....	16
Philosophy, Ethics and Logic.....	17
Psychology.....	17
Religion.....	17
Section 2. Social Sciences.....	18
a. Geography.....	18
b. History.....	19
c. German History.....	21
d. United States and the States.....	21
e. Political Science.....	21
f. Economics and Commerce.....	22
g. Sociology.....	28
h. Education.....	23

Section 3. Physical Sciences.....	24
Mathematics.....	24
Astronomy.....	24
Physics.....	24
Chemistry.....	25
Geology and Palaeontology.....	25
Section 4. Biological Sciences.....	26
Agricultural Library.....	28
Engineering Library.....	28
Journalism Library.....	28
Law Library.....	29
Medical Library.....	29
Inter-Library Loan.....	30

## INTRODUCTION

A survey of the research materials in the University of Missouri Library.

In 1926, the Librarian issued a bulletin on the *Facilities and Resources of the University Library for Graduate Work*. Since then the facilities have been increased and much resource material has been added. Ample provision has been made in the new wing for the accommodation of graduate students. The spacious study rooms for the research students in American, English, French, German, Italian, Spanish, and Classical Literature; in Education; in Economics, Political Science, Sociology, and Geography; in Chemistry, Mathematics, Physics, and Astronomy, leave little to be desired. The students are provided with easy arm chairs, with locked drawers in all the tables for storing their manuscripts, and an attendant in every study room assists the researcher in finding material. The stacks are provided with 138 cubicles where students may study in close proximity to their books.

While the material for graduate work is adequate in some fields, in other fields it is not. The attitude of the present administration is to use increased amounts for the purchase of additional resource material.

The present survey of the resources has been compiled to facilitate the work of the graduate students, to furnish desired information to prospective students, and to furnish information to the faculty about the University of Missouri Library.

The material has been arranged according to the *Guide for the Description and Evaluation of Research Materials in American Libraries*, prepared by a Committee on Resources of Southern Libraries.

### Part 1—General Classes

#### Section 1. Bibliography

Any university library should contain many of the standard bibliographies and many special ones. The University of Missouri Library has a collection of practically 3,000 volumes of bibliographical material, as large a collection as some of the much larger universities possess.

An outline of the bibliographical material in the University of Missouri Library follows:

##### a. Library Catalogs

The University of Missouri Library has a card catalog of the printed material in the Library of Congress. The Library has the following printed catalogs: British Museum *Catalog* in process of publication, the *Catalogue* of the Bibliotheque Nationale and *Catalogs* of the Boston

Athenaeum, Detroit Public Library, University of Edinburgh, the London Library, and of the Peabody Institute, also the *Annaes* de Bibliothecca Nacional de Rio Janeiro.

### b. General Bibliographies

The Library has Brunet, *Manuel du Libraire*, Debure. *Bibliographie Instructive*. *Gesammikatalog der Wiegendrucke*, Graesse. *Tresor de livre rare et precieus*, and Watt. *Bibliotheca Britannica*.

### c. National Bibliographies

#### American

The bibliography of the publication of books in the United States is practically complete for the year 1639 to date. The Library has: Rich. *Catalog of Books Relating to America 1500-1700*, Evans. *American Bibliography 1639-1820*, Roorbach. *Bibliotheca Americana* 1849, 1852, 1855, 1858-1861, Sabin. *Bibliotheca Americana* v. 20 to date, the *American Catalog*, the *United States Catalog*, *American Book Prices Current*, and the *Union List of Serials*.

#### British

*Term Catalogues 1668-1709*, Watt. *Bibliotheca Britannica* 1824, Lowndes. *Bibliographers Manual*, *London Catalog of Books 1814-1851*, the *English Catalog of Books 1864 to date*, Whitaker. *Cumulative Book List*, and *Reference Catalog of Current Literature*.

#### French

Lorenz and Jordell. *Catalogue Général de la Librairie Francaise*, *Catalogue Valdras*, "Biblio," *La Librairie Francaise*.

#### German

Kayser. *Bucher-lexikon 1750-1910*; *Deutsches Bucherverzeichnis*, *Deutscher Literaturkatalog*, Hinrich. *Halbjahrs-Verzeichnis*.

#### Italian

Pagliaini. *Catalogo Generale du Libreria Italiana 1747-*

#### Spanish

*Bibliografia Espanol*.

### d. General Periodical and Newspaper Indexes

The Library has Poole's *Index*, *Readers Guide to Periodical Literature*, *International Index*, *New York Times Index*, *Magazine Subject Index*, *Union List of Serials in the United States and Canada*, *Union List of Serials in the Libraries of Missouri*, *World List of Scientific Periodicals*, *Check-lists* of newspapers in New York Public Library, Library of Congress, New Jersey Historical Society, Yale University

Library, and *catalogs* and *check-lists* of Federal Government *publications* and of the State Historical Society of Missouri.

#### e. Bibliographical Literature

The Library has at least 3,600 volumes of bibliographical literature. There are a few lists of rare books, such as Bixby's *List of Books*, privately printed by W. K. Bixby, John Carter Brown. *Bibliotheca Americana* Brunet. *Manuel du Libraire*, and Graesse. *Tresor de livre rare et precieus, and others*.

Bibliographical Society of America *papers*, Bibliographical Society of London *papers and transactions*, Oxford Bibliographical Society *proceedings*, *Saturday Review of Literature*, *Books Abroad*, *Literary Supplement to London Times*, and *Bulletin of Bibliography*.

#### f. Subject Bibliographies

The University of Missouri Library is well equipped with standard bibliographies in many special fields.

#### 1. Bibliography of Philosophy and Psychology

*Année Psychologique*, *Psychological Abstracts*, and *Psychological Index*.

#### 2. Religion

*Catholic Encyclopaedia*, *Jewish Encyclopaedia*, and Hastings' *Dictionary of the Bible*.

#### 3. Social Sciences

Education Index, Kuhlman. *Crime and Criminal Justice*, *Bibliographie der Socialwissenschaften*, *Public Affairs Information Service*, *Social Science Abstracts*, United States. State Department. *Catalog of Treaties*.

#### 4. Science

*Bibliography of North American Geology*, *Biological Abstracts*, *Bibliographie des Sciences Geologique*, Bolton. *Bibliography of Chemistry*, *Botanical Abstracts*, Canada. *Catalog of Publications in Geology*, *Chemical Abstracts*, Crane. *Guide to Literature of Chemistry* *Fortschritte der Physik*, *International Catalog of Scientific Literature*, Meisel. *Natural History*, Nickels. *Bibliography and Index of Geology*, Royal Society of London. *Catalog of Scientific Papers*, *Science Abstracts*, *Zoological Record*, and many others.

#### 5. Technology

*Agricultural Index*, *Industrial Arts Index*, *Engineering Index*, *Index Medicus*, *Bibliography of Aeronautics*, Crane. *Index of Mining Engineering Literature*, Osler. *Incunabula Medica*, U.S. Surgeon General's Office. *Index Catalog*.

## 6. Fine Arts

*Art Index*, Avery. *Architectural Library Catalog*, Boston Public Library. *Catalogue of the Allen A. Brown Collection of Music*, Sears. *Song Index*, Pan American Union List of Latin American Music, Princeton University. *Finding List for the Music Library*.

## 7. Literature

M.H.R.A. *Annual Bibliography of English Language and Literature*, *Year's Work in Classical Studies*, *Year's Work in English Studies*, *Year's Work in Modern Language Studies*, *Dramatic Index*, *Bibliographie Hispanique*, *Jahresbericht u.d. Wissenschaftlichen Erscheinungen*, *Bibliotheca Philologica Classica*, *Jahresbericht u.d. Erscheinungen a.d. Gebiete der Germanischen Philologie*, Goedeke. *Grundriss zur geschichte d. Deutschen Dichtung*, *Jahresberichte f. neuen Deutsche Literaturgeschichte*, Northrup. *Register of Bibliographies of . . . English Language*, Lanson. *Manuel Bibliographique*, Texas University. *Catalog of the Library of the late J. W. Wren*.

## 8. History

Chevalier. *Répertoire des Sources Histoire du Moyenage*, *Répertoire Bibliographie de l'histoire de France*, *Sources de l'histoire de France*, Bradford. *Bibliographer's Manual*, and Griffin. *Writings on American History*. The Library has many other bibliographies of other countries.

## 9. Library Literature

The Library has 1,035 volumes on public, institutional, and private libraries. In library science, classed in 020 to 029, there are 398 titles of periodicals and 1,679 books. The periodicals include the professional journals, such as *Libraries*, *The Library Association Record*, *Library Journal*, *Library World*, *Revue des Bibliothèques*, American Library Association. *Bulletin*, and the bulletins of individual libraries and commissions.

## Section 2. Dissertations

The University of Missouri Library has 36,016 foreign theses, unbound and not cataloged. The policy is to bind all theses having more than one hundred pages of text, then, after the theses are bound, they are shelved as books according to subjects in the stacks.

The theses from the Dutch universities are checked in the *Catalogus van Academ. Geschriften en Nederland. verschenen*, the Swiss theses in *Catalogue des Ecrits Academique Suisses* 1905 to date—17,887 in number. These were received from many of the Universities; the larger number coming from the Universities of Basel, Bern, Geneva, Neuchatel, and Zurich.

The German theses, about 19,000 were received from all of the German Universities; the larger number coming from Breslau, Giessen, Goettingen, Halle, Jena, Kiel, Marburg, and Wurzburg. These are checked in the *Jahres-Verzeichnis der an den Deutschen universitäten und hochschulen erschienenen schriften*.

The German theses grouped by subjects fall into three broad classifications: law and political science—4,000; medicine—6,763; and philosophy—6,776.

All theses checked in the indexes are arranged alphabetically in boxes and the boxes are arranged on the shelves by dates.

The French theses are listed in one section of *Bibliographie de la France*.

The Library has Fock's *Catalogus Dissertationem Philologicarum Classicarum*, and Maire. *Répertoire Alphabetique des Thèses de Doctorate es Lettres des Universités Française 1810-1900*.

The theses of most of the American Universities may be found in the Library. The larger number were recieved from the University of Chicago, Columbia University, University of of Illinois, Johns Hopkins University, University of Michigan, and the University of Minnesota.

The Library has many American lists of theses, such as those published by the University of California, University of Chicago, Columbia University, and the University of Illinois; also the *List of American Doctoral Dissertations 1912 to date*, published by the Library of Congress, and Gilchrist. *Doctoral Dissertations Accepted By American Universities* (annual).

### Section 3. Documents

#### a. State Documents

The collection of Missouri state documents in the State Historical Society of Missouri is more nearly complete than any other collection in the state. The University Library does not specialize in Missouri documents. Since the State Historical Society of Missouri discontinued collecting documents published by other states, the University Library collects all the publications of other states. The Library now contains more than 35,000 documents, and the State Historical Society has 21,000, making a total of upwards of 56,000 state documents exclusive of Missouri documents.

#### b. Federal Documents

The University of Missouri Library has been a depository for the federal government documents for more than thirty-five years. There are 8,160 volumes in this set alone. Other federal documents, such as the publications of the Commissioner of Education, the publications of the

Department of Agriculture, publications of the Geological Survey, and publications from other departments are received and classed with their subjects in the stacks. In addition to these documents, the Library has a file of the *Annals of Congress, Debates and Proceedings in Congress* 1789 to 1824, *Congressional Globe*, *Journals of the Continental Congress*, *Journals of the United States Senate*, first five sessions, the *American State Papers* and *U. S. Statutes*.

### 3. Foreign Documents

#### France

The principal legislative material is the *Archives Parlementaire* 1787-1860 and the *Journal Officiel* of the French Assembly 1869 to date.

#### Great Britain

The legislative publications of Great Britain, owned by the University of Missouri Library, are: complete set of Hansard. *Parliamentary Debates, Parliamentary Papers* 1921 to date, Record Office. *Rolls series*, and *Reports of the Royal Commission on Historical Manuscripts*.

#### Peru

*Diary de los Debates* 1919 to date.

The Library has many miscellaneous documents of Canada, Germany, Austria, and other foreign countries.

### Section 4. Newspapers

The State Historical Society of Missouri has the largest collection of the newspapers published in the State of Missouri, about five hundred volumes are added annually.

The University of Missouri Library preserves a file of the *Missourian*, the *New York Times*; complete from 1915 to date, and the *Manchester Guardian*; 1936 to date. A complete file of the *Index to the New York Times* is available in the reference reading room.

### Section 5. Periodicals

#### a. Periodicals of a general nature

The Library has 6,279 volumes of periodicals of a general nature, such as the *Atlantic Monthly* and *Scribner's Magazine*. These are indexed in Poole's *Index* and in the *Readers' Guide*. The majority of the periodicals indexed in these guides are shelved in the reference reading room. The total number of volumes of periodical literature in the General Library is nearly 40,000 volumes. The holdings of the Library are listed in the *Union List of Serials in the Libraries of the United States and Canada*, also in the *Union List of Serials in the Libraries of Missouri*. For many years the Library has emphasized the



completion of the Poole's *Index* and *Readers'* Guide sets of periodicals with considerable success as an examination of the files will show.

## b. Academy and society publications

The Library has about 15,000 bound volumes of the publications of academies of a general nature. These publications, for the most part, are received in exchange for the University of Missouri *Studies* and *Bulletins*. Consequently, the files of most of the academy publications do not antedate the beginning of the present series of the *Studies*. A large number of titles, about fifty, are represented in the collection.

A few representative titles are:

Academia de Ciencias de Cordova  
 Academia de Lisboa  
 Academie des Sciences de Belgique  
 Academie des Sciences de Russie  
 Academie des Sciences Paris  
 Accademia dei Lincei  
 Akademia Nauk  
 Akademie der Wissenschaften, Berlin  
 Akademie der Wissenschaften, Munich  
 Akademie der Wissenschaften, Wien  
 Akademie van Wetenschappen, Amsterdam  
 American Academy of Arts and Sciences  
 American Philosophical Society  
 Connecticut Academy of Arts and Sciences  
 Gesellschaft der Wissenschaften, Goettingen  
 Institut de France  
 Istituto Veneto di Scienze, lettere ed arti  
 Royal Asiatic Society  
 Royal Canadian Institute  
 Sächsische Akademie der Wissenschaften  
 Société des Naturalistes Moscow  
 Wisconsin Academy of Arts and Sciences

## Part 2—Special Subjects

### Section 1. Humanities

#### A. Language and Literature

##### a. American Literature—3,750 volumes

Very little graduate work has been done in this University in American literature. The collection is not large but it contains complete works of the main writers, such as James C. Cabell, Hawthorne, Irving, Henry James, Longfellow, Lowell, Poe, Riley, Thoreau, Whit-

man, and others. The State Historical Society has a rather complete collection of the writings of Eugene Field and Mark Twain. The Twain collection was recently enriched by the addition of the library collected (over a period of years) by Purd B. Wright, Librarian of the Kansas City Public Library. *Cambridge history of American literature* and the histories by Richardson and Moses Coit Tyler, and Wendell; *Library of American Literature* by Stedman and Hutchinson, *Library of the World's best Literature* by Warner, the *Library of Literary Criticism* by Moulton, and the *Library of Southern Literature* are a few of the books of a general nature. The language and literature journals cover several languages.

**b. English Language and Literature—8,000 volumes**

English literature is a large field and has numerous subjects worthy of the consideration of research students. In many divisions the material is adequate but not so large as desired. The journals and publications of societies fairly represent the philology and literature of this field. The material in the journals, such as the *American Journal of Philology* and *modern Philology*, covers not only the English language but also the romance and classical languages. The Library has the publications of the several universities in philology and literature, and the majority of the philological journals published including such titles as the following:

American Philological Association. Proceedings

Anglia

Anglistische Forschungen 5-

Bonner Beiträge

Early English Text Society. Publications.

Englische Studien

Poet lore

Poetry (6-15) 16-

Review of English Studies

Revue Anglo-Americane

Studien zur Englische Philologie

Wiener Beiträge

Yale Studies in English

The Library possesses complete works of all the standard authors, and in many cases the books of criticisms and the lives of the authors in various editions and translations. The Library is equipped to furnish material for research work on the following authors:

*Browning*—200 volumes

Complete works, 12 v., 1898, N.Y. Crowell.

Students, Cambridge Ed., 1895, Boston. Houghton.

17 v., 1888-1889, London. Smith Elder.

1896, New York. Macmillan.

1933, New York. Macmillan.

Publications. Baylor University. *Browning Interests* 1927-

Boston Browning Society 1886-1899

Boston Society Papers 1881-1894, v. 1-5, 7-13

The Library has first edition of *Red Cotton Night Cap Country* London. 1873, and *Jocoseria*, London. 1883.

*Byron*—90 volumes

In addition to Byron's *Poems* 1903, 7 volumes and *Letters and Journals* 1902, 6 volumes, his complete works are represented by eleven editions.

*Carlyle* is represented by two complete editions—Centenary Edition and the Sterling Edition. In all there are 150 volumes by him and about him.

*Chaucer* is represented by 340 volumes.

The Library has a facsimile of the first collected edition of his works in 1532. It has, also, complete works edited by W. W. Skeat, Arthur Gilman, Alfred W. Pollard, Thomas R. Lounsbury, John S. P. Tatlock, Percy Mackaye, and others. The student will find a wealth of material in the *Publications* of the Chaucer Society, consisting of 155 volumes. There are two bibliographical works: Griffith. *A Bibliography of Chaucer*, and Hammond. *A Bibliographical Manual* in addition to Skeat. *The Chaucer Canon* and other books about Chaucer and his works.

*Defoe* is represented by 83 volumes.

*DeQuincy* is represented by 49 volumes. His main work is *Collected Writings* edited by David Masson in 28 volumes.

*Dickens* has 197 books written by him and 23 about him. The Biographical edition, the National library edition, and Edition de luxe in 20 volumes each comprise his best collected works. Charles Dickens and Maria Beadnell: *Private Correspondence Facsimile Reproduction* edited by George Pierce Baker and privately printed for William K. Bixby 1908 is the rarest item the Library possesses of Dickens.

*Dryden*—100 volumes. There are 18 volumes of *Complete Works* edited by Sir Walter Scott and George Saintsbury, *Dramatic Works* in 6 volumes, *Essays* in 2 volumes, *Poetical Works* of which the important editions are the Cambridge edition by George R. Noyes and the Gillilan edition.

*George Eliot*—136 volumes, four complete editions.

*Fielding*—68 volumes.

*Bulwer Lytton*—80 volumes.

*Milton*—350 volumes.

The Library has several choice editions of Milton. These are important:

Poetical works ed. by Brydges 1835 and 1862	
Poetical works ed. by Mitford 1851.....	8 volumes
Poetical works ed. by Hayley, 1794-97.....	3 volumes
Poetical works ed. by Montgomery 1843.....	2 volumes
Poetical works ed. by Todd 1801.....	6 volumes
Poetical works ed. by Gilfillan 1853.....	2 volumes
Poetical works ed. by Masson 1890.....	3 volumes
Paradise regained ed. by Dunster 1795	
Prose works ed. by Symmons 1806	

*Scott*—275 volumes, of which 243 are his works.

The Library has the Jenson Society edition, 25 volumes

Waverly Novels.....	25 volumes
Dryburgh ed.....	25 volumes
Poetical works ed. by Gilfillan.....	3 volumes
British poets.....	10 volumes in 5 volumes

*Shakespeare*—about 1,800 volumes

There are twenty-six editions of his dramatic works in the Library:

Works ed. by Capell 1767-1768.....	10 volumes
Works ed. by Theobald, ed. 2 1740.....	8 volumes
Works ed. by Pope 1723-1725.....	6 volumes
Works ed. by Johnson, Steevens 1785.....	10 volumes
Works ed. by R. G. White 1901.....	6 volumes
Works ed. by Halliwell 1850-1853.....	2 volumes
Works New variorum ed. by Furness 1871-1913....	18 volumes
Works ed. by J. P. Collier 1853.....	8 volumes
Works ed. by Dyce 1880.....	20 volumes
First folio facsimile ed. by Halliwell-Phillipps 1887 from 1623 ed.	
Works ed. by W. A. Wright 1891-1893.....	9 volumes
Boydell's Illustrations of Shakespeare's plays, Am. ed.	2 volumes

The Library has the Shakespeare Society *Publications* 1850-1853, 19 volumes, The New Shakespeare Society *Publications* 1874-1904, 50 volumes and the *Jahrbuch der Deutschen Shakespeare-Gesellschaft* 1865.

*Shelly*—about 1,000 volumes.

*Spenser*—about 300 volumes

The Library has Grosart's edition of Spenser's *Complete Works*, 9 volumes, 1882-1884, and Collier's edition 1873, 5 volumes. There are six editions of his poems. There are 38 volumes about Spenser and his works.

*Stevenson* is represented by 213 volumes, of which 193 are his works.

*Swift*—117 volumes.

The Library has four sets of Swift's complete works and his correspondence in 6 volumes.

*Tennyson*—124 volumes, 9 editions of his complete works.

*Thackerary*—70 volumes.

*Works*, complete in 22 volumes, 1889-1892, edited by Horace E. Scudder.

*Wordsworth*—100 volumes.

Nine editions of his *Complete Poetical Works*.

Dowden's Aldine edition, 7 volumes, 1892-1893, is probably the most important. The Library has also the *Transactions* of the Wordsworth Society, numbers 1-8, 1882-1887.

### c. German Language and Literature

This collection consists of 5,500 volumes. The periodicals and serials are represented by 479 volumes.

Emphasis has been placed upon the Goethe collection which consists of 400 volumes. Goethe is represented by six complete editions besides numerous titles of individual works. The *Jahrbuch* and *Schriften* of the Goethe Gesellschaft are complete. Schiller is represented by six complete editions of his work besides many separate titles and works about him.

All the important German writers are represented by one or more editions of their complete works, such as Fontane, Freytag, Grillparzer, Hauptman, Hebel, Herder, Heyse, Keller, Kleist, Lessing, Rosegger, Schlegel, Treck, and many others.

There are Kürschner. *Deut. National Literatur*, The *Bibliothek des Literatur Vereins* in Stuttgart (272v.), Goedeke. *Grundriss z. geschichte d. deut. dichtung*, Paul's *Grundriss der German. philologie*, and the important journals in the field of German philology and literature; some of them are: *Hesperia* 1-, *Jahresbericht fur neue deut. literaturgeschichte*, *Jahresbericht fur u. d. Erscheinungen d. German. philology* 1-, *Palaestra* 1-, *Zeitschrift fur Deut. philologie* 1-.

#### d. French and Italian Language and Literature

There are more than 5,000 volumes in French and 1,000 in Italian language and literature.

The Library is well equipped for the study of French and Italian language and literature. The collection is represented by 5,954 volumes and is especially full in the early period of French literature. The collection contains files of all the important journals and a complete file of the publications of the Gesellschaft fur Romanische Literatur. the Société des textes anciens, also the *Bibliothèque de xv siècle*.

The authors stressed are: Hugo, Balzac, Sainte Beuve, George Sand, Rousseau, Dumas, Moliere, Zola, Voltaire, France, Montaigne, Bossuet, and Rabelais.

#### e. Spanish Language and Literature

The Spanish department was organized rather recently. It has a collection of 1,730 volumes. The authors being emphasized are: Pedro A. Alarcon, Barjoa, Blasco Ibanez, Cabellero, Cervantes, Echegaray and Perez Galdos.

#### f. Classical Language and Literature

The Library's collection of books in Classical languages and literature is quite complete and is one of the best in the universities of the Unites States. It consists of 6,720 volumes and practically all the journals including classical archaeology.

The Library purchased the Lejay private library in 1921. This collection contained about 3,000 volumes in the field of the Classics. Paul Lejay was a professor of Classical Literature in the College de France. During thirty years he had accumulated this valuable library as his working collection. He had 200 volumes by and about Cicero, 100 volumes on Horace, 100 volumes on Virgil, and from 25 to 90 volumes on each of the following: Livy, Lucretius, Lucan, Ovid, Plautus, and Pliny. Eduard Champion in writing of the Lejay collection stated, "There are all the best editions of Horace and Virgil published by our old France, so fond of Classics. There are here all works published by the learned men of the XIX century either French or German."

#### g. Folk lore

There are 350 volumes in the field of folk lore including the *Hessische Blatt*, *Journal of American Folklore* and the *Journal of the Folk Song Society*.

#### h. Fine Arts

The collection consists of 7,008 volumes of which 997 are periodicals and 2,155 are music. The important art magazines are in the Library,

such as *Art in America*, *Arts and Decoration*, *Burlington Magazine*, *Gazette des Beaux-Arts*, and the *International Studio*. These magazines are complete.

## B. Philosophy, Ethics and Logic

a. In these classes the Library has 6,696 volumes of which 920 are volumes of periodicals. The field of philosophy is well covered. Ancient and modern philosophers are represented by their published works and by works written about them. The current literature in the field of philosophy will be found in the journals, transactions and proceedings of learned societies of which the Library contains the most important in the field representing contributions from the philosophers of France, Germany, Great Britain and the United States. The following important journals are complete: *Hibbert Journal*, *International Journal of Ethics*, *Journal of Speculative Philosophy*, *Mind*, *Monist*, *Philosophical Review*, *Philosophy*, *Journal of Philosophy*, *Revue de Metaphysique*, *Revue Philosophique*, *Beitraege z. Geschichte der Philosophie des Mittelalters*, *Proceedings of the Aristotelean Society*, the *Kant Studien*, and the American Philosophical Society. *Proceedings* 8-.

## b. Psychology

In the field of psychology the Library is adequate. It comprises a collection of 1,756 volumes of which 828 are volumes of periodical literature. Twenty-eight journals are currently received. All of the important journals in this field are available.

## c. Religion

In the field of religious literature the Library is strong in church history, Bible school and missionary work, and in editions of the Bible, parts of the Bible, and works about the Bible. The Library purchases few books in this field as there is no chair of religion in the University. The collection has been accumulated largely through gifts. However, nearly eight hundred volumes on theology and religious history were added through the purchase of the private library of Professor Lejay. This makes a total of 6,500 volumes and 1,244 volumes of periodicals in the field of religious literature. The Library possesses the standard dictionaries and encyclopaedias including the *Catholic Encyclopaedia*, the *Jewish Encyclopaedia*, Hastings' *Encyclopaedia of Religion and Ethics*, his *Dictionaries of the Gospels and of the Apostolic Church*, the *Real Encyklopaedie fur Praktische Theologie*, and *New Scharff-Herzog Encyclopaedia of Religious Knowledge*. The Library has also the *Acta Sanctorum* ed. Bollandus 1863-1897; Dugdale's *Monasticon Anglicarum*, Mueller's *Sacred Books of the East*, and the *Babylonian Talmud*, also the works of the church Fathers and of such men as John

Owen, John Knox, Thomas Smyth, Joseph Bingham, Richard Hooker, John Huss, John Calvin, John Wycliffe, Bishop Cranmer and Martin Luther, and of such modern divines as Phillips Brooks, Cardinal Newman, Augustus H. Strong, and Adolph Harnack. The collection was enriched by the gift of the William Benjamin Smith private library in which there were 900 volumes of religious literature. In this collection were several translations of the Bible and reproductions of several celebrated codices of the Old and the New Testament, such as *The Sinaitic Codex* discovered and edited by Tischendorff, *Codex Ephraemi Syri Rescriptus*, *Codex Claromontanus*, *Beza Codex Cantabrigiensis*, *Codex Amiatinus*. There is the Curetonian version of the Four Gospels The Testament of the Twelve Patriarchs, the sons of Jacob, the works of Philo Judaeus, of Clement of Alexandria, *Specilegium S. S. Patrum ut Haereticarum*, and the very rare work *Novum Testamentum Graecum* edited by J. J. Wetstenius in two volumes, and many works on the life, letters and theology of St. Paul. The Library is therefore better equipped in religious literature than many theological seminaries.

## Section 2. Social Sciences

### a. Geography

In the field of descriptive geography the Library has 31 titles of journals and society publications. Many of the important journals are complete. A few titles are given:

American Geographical Society of New York *Bulletin and Proceedings*  
 Angewandte Geographie (1904-1909)  
 Annales de Geographie 31-  
 Association of American Geographers  
 California University. Publications in Geography.  
 Canadian Geographical Journal 6-  
 Deut. Geog. blatter 40-  
 Economic Geography  
 Geographical Journal  
 Geographical Review  
 Geographical Society of Philadelphia. Bulletin 2-  
 Geog. zeitsch. 28-  
 Gesellschaft fur Erdkunde. Berlin  
 Geografiska Sallskapet i Finland  
 Journal of Geography  
 Journal of School Geography (1)-5  
 National Geographical Magazine  
 Quellen and Forschungen zur Erd. u. Kulturkunde 1-8



Sociedad de geografia e historia. Annals. Guatemala.  
Sociedad Geog. de Lima. Boletin 31-  
Sociedad Geog. de Rio Janeiro Boletin  
Société de geographie de Quebec. Boletin 16-

The titles include journals published in Canada, Germany, France, Finland, Austria, England, Peru, Brazil, and Mexico. The collection in this field is not large, about 800. The student of geography will find much material in description and travel in the classes 912-919, also in the field of physical geography.

## b. History

In addition to the geography section the student of history will find in the collection of 5,200 volumes general history and description including the section on archaeology.

### 1. Archaeology

The Library contains the following:

American Journal of Archaeology  
American Academy in Rome. Papers  
British school at Athens. Annual  
California University. Publications in American Archaeology  
Deut. Archaeologisches Inst. Jahrbuch  
Deut. Archaeologisches Inst. Athenische Mitteilungen  
Deut. Archaeologisches Inst. Romanische Mitteilungen

### 2. Biography

The collections and individual biographies number about 1,000 volumes. The Library has the following:

Allgemeine Deutsche Biographie  
Cyclopedia of American Biography  
Dictionary of National Biography  
Dictionary of American Biography  
National Cyclopedia of American Biography  
Norsk Biografisk Leksikon  
Nouvelle Biographie General

and the current biographical works, such as *Who Who's* and *Who's Who In America*.

### 3. Ancient History

The history of Greece, Rome, and other ancient countries, including the material in class 913 archaeology and description, is represented by 2,000 volumes

#### 4. Medieval and Modern History—2,327 volumes

(not including the European subdivision, such as Germany and France)

The Library has the following titles of source material of the middle ages, listed in Potthast's *Bibliotheca historica medii aevi*:

Acta Sanctorum (Benedict)

Acta Sanctorum (Bollandus)

Baluzius Historie des capitulaires des rois français

Bibliothek des litterarischen verein in Stuttgart

Camden Society. Publications 1-80 (84-105)

Chroniken des deutschen stadte (partial set)

Corpus Scriptorum Ecclesiasticorum Latinorum

Goldast. Collectio Constitutionum Imperialium

Michaud. Nouvelle collection des mémoires pour servir a l'histoire de France

Migne. Patrologiae Latinae (partial set)

Monumenta Germaniae historica

Recueil des historiens des croisades

Scriptores rerum Germanicarum

also, Historische Zeitschrift

Revue d'histoire diplomatique 1-16, 18-28

Revue des questionnes historique 87-

Revue historique

Speculum

#### a. Great Britain

The Library has about 1,500 volumes on the history and description of Great Britain including complete sets of Hansard's *Parliamentary Debates*, the *Chronicles and Memorials of Great Britain*, the *British Parliamentary papers* from 1921 to date, the *English Historical Review*, *Journal of the Parliaments of the Empire*, *Round Table*, *Scottish Historical Review*, Camden's *Britannica*, Gt. Britian Royal Comm. on Historical Mss. *Reports*, *Harleian Miscellaney*, *Domesday Book*, Dugdale. *Monastican Anglicarum* and Camden Society. *Publications*.

#### b. France

There are about 1,800 volumes in the history and description of France. The Library is especially well equipped in the early history of France and the history of the provinces, such as Lanquedoc. Some of the titles of the important source material are:

Recueil des historiens des Gaules et de la France

Société de l'histoire de Paris. Bulletin et Memoires

Société de l'histoire de France. Publications

Memoires relatifs a l'histoire de France  
Archives Parlementaires 1787-1866  
Journal Officiel 1870 to date  
Michelet. Histoire de la revolution Francaise  
Michelet. Hisotire de France  
Collection de documents inédits sur l'histoire de France  
Histoire litteraire de la France

The Library has 400 volumes on the history and antiquities of Alsace-Lorraine, 1300 volumes on the legal antiquities, comparative law and ordinances of the kings of France, and 150 volumes of car-tularies.

**c. German**

The Library has about 1,500 volumes on German history. The most important source material is the complete set of *Monumenta Germania Historica*.

**d. United States and the States.**

The collection of books on the United States and the States is rather meagre, about 5,000 volumes. The works of American Statesmen, the standard historical periodicals and the publications of American History Societies are on the Library shelves in this section. The State Historical Society of Missouri specializes in Missouri history and description. Its collection of 101,408 volumes is ample for research work.

**e. Political science, government and public administration**

This is one of the largest divisions of the Library. There are 24,250 volumes in this field of which 5,360 are volumes of bound periodicals.

The Library is especially rich in the field of public law and comparative legislation, as indicated in the description of the Flach library. In addition to the material in the Flach library, the Library has secured a complete collection of the publications of the League of Nations and the World Court, a complete set of Marten's *Recueil des traités d'alliances de Paix de treve*, 94 volumes, Marten's *Recueil des traités et conventions conclus par la Russie avec les puissances étrangères*, 12 volumes, complete set of Hansard's *Parliamentary Debates*, the *Parliamentary History of England from the Earliest Period* to 1803, *Parliamentary Papers of Great Britain* from 1921 to date, *Archives Parlementaires* (France) 1787-1860, and *Journal officiel de la Republique Française* 1870 to date. A few titles of periodicals will indicate the strength of the Library in history and political science. Practically all the sets are complete.

American Journal of International Law  
 American Political Science Review  
 Annals of the American Academy  
 Archiv des Oeffentlichen rechts  
 Deutsche. Juristen. Zeitung  
 Europe Nouvelle 4-  
 Foreign Affairs  
 Jahrbuch fur Gesetzgebung  
 Jahrbuch des Oeffentlichen rechts der Gegenwart  
 Journal of Comparative Legislation  
 Journal of the Parliaments of the Empire  
 Journal de droit international privé  
 Journal of Public Administration  
 Kritische Vierteljahresschrift fur Gesetzgebung  
 La France Judiciaire  
 Recueil général des lois decrets et ordonnances de France  
 Reichsgesetzblatt  
 Revista Mexicana de Derecho Internacional  
 Revue de droit international et de legislation comparée  
 Revue d'histoire diplomatique  
 Revue Historique de droit Francais et Etrangère  
 Société de Legislation Comparée. Bulletin and Annuaire  
 Zeitschrift fuer Geschichtliche Rechtswissenschaft 15v.  
 Zeitschrift fuer Internationales recht (Niemeyer)  
 Zeitschrift fur Vergleichende Rechtswissenschaft

#### f. Economics and Commerce

The Library is quite ample in its collection of literature on economic subjects. There are 17,550 volumes in this field of which 2,162 are bound periodicals. The important American, English, French, and German periodicals are available. The collection is rather full in the subjects of capital and labor. The Library has been receiving for thirty years the official publications of labor organizations, such as *the Bridgeman's Magazine, the Carpenter, the Typographical Journal* and many others. It has the reports on labor conditions published by several states, the Federal government, by foreign governments, and all the important labor journals, including the International Labor Office publications and the *Publications* of the League of Nations. The Library contains the insurance reports of all the states, the railway reports of the states, the publications of the Interstate Commerce Commission and the controversial pamphlets and books on the railway questions. The literature covers also the subjects money, credit, banking, public finance, protection, free trade, production, manufacturing,

prices, corporations, and many others. There are 17,550 volumes, hundreds of pamphlets and all the important economic journals in the collection. The research students in economic subjects will find a large collection of material awaiting them.

#### g. Sociology

Sociology is a comparatively recent science. Since the subject was introduced into the curricula of the universities about forty years ago, the literature of the subject has accumulated rapidly. The sociologist considers his field to cover ancient and modern civilization, philosophy and psychology, history, ethnology, anthropology, biology, eugenics, labor and the laboring classes, philanthropy, criminology and many other subjects. In brief, his field covers the origin and the development of society from primitive times to the very complex problems of the modern time. In the restricted fields of rural and urban society, socialism, ethnology, anthropology, in the care and study of the unfortunate, crime, prisons, and the like, the Library is well equipped having more than 10,813 volumes of which 2,662 are volumes of periodicals.

The Library has a special collection of books on criminology including the greater and lesser trials in courts presented by the late J. D. Lawson, for many years dean of the Law School, University of Missouri. The collection is known as the Lawson library. There are several thousand pamphlets and books dealing particularly with criminal trials. The library was Judge Lawson's working collection for the compilation of his great work: *American State Trials*, and contained many rare brochures and books. The riches of the collection have not been exploited and await the arrival of a research student who may be interested in this important subject.

#### h. Education

39,000 volumes in the field of Education, not including allied subjects, furnish a working library for the educators and the teachers but the collection in the University of Missouri Library is not so comprehensive as the special collections in education of the Penniman Library of the University of Pennsylvania or of the Teachers College of Columbia University. However, the various fields of education and the modern movements in education are sufficiently well covered as to make it possible for students to pursue their investigations. The collection is rather full of material on the history and philosophy of education, school organization, administration and supervision, on secondary and university education and on the methods of instruction. There are more than 17,000 volumes on secondary and university education.

The *Education Index* is a very useful tool in research work. This *Index* lists 137 educational journals, of this number the Library receives currently 105. The Library contains nearly 1,873 bound volumes of educational periodicals.

### Section 3. **Physical Sciences**

#### 1. **Mathematics**

The University of Missouri Library has 3,476 volumes in mathematics. There are 1,330 volumes of periodicals. Some of the important complete files are:

- American Journal of Mathematics 2-
- American Mathematical Society. Bulletin and Transactions
- Crellé's Journal für Mathematik
- Journal de Mathématique ser. 9-
- Journal für reine und angewandte math. 56-
- London Mathematical Society. Proceedings ser. 2-
- Math. Annalen
- Circolo Math. di Palermo. Rendiconti

There are collected works of many mathematicians, such as Cayley, Euler, Hill, Brahe, and Galileo, also sets of the German and French mathematical encyclopaedias.

#### 2. **Astronomy**

The Library has a collection of 3,035 volumes including 648 periodicals, and the publication of all the medium and large observatories in the world. The records and the results of observations throughout the world and the important works of astronomers are available for research work.

#### 3. **Physics**

The Library has a collection of 3,196 volumes in physics including 1,471 volumes of periodicals. The standard works in physics and its subdivisions are in the Library, such as

- Annalen der Physik
- Annales de Physique
- Physical. Berichte
- Physikal. Zeitschrift
- Physics
- Physical Review
- Physics Society of London. Proceedings
- Science Abstracts (Physics)
- Zeitschrift für Physik
- Journal of Scientific Instruments

and the works of such physicists as Chiwolson, Clerk, Maxwell, Sir William Thompson, Lord Rayleigh, C. G. Stokes, P. G. Tait, and Winkelman.

#### 4. Chemistry

In chemistry the results of researches are contained in the journals. The Library has 5,895 volumes in this section of which 3,867 are journals and society publications. The proceedings and transactions of the English, French, German, and American Chemical Societies are available, also the standard periodicals, such as

Annales de chemie et de Physique ser. 9-

Deut. Chem. Gesellschaft

Chemisches Zentralblatt ser. 5 v. 1-

Gazetta Chimica Italiana 55-

Journal für Praktische Chemie

Leebig's Annalen der Chemie 41-

Monatshefte für Chemie 56-

Société Chimique de France Bulletin

Zts. für Analyt. Chemie

Zts. für Angewandte Chemie 1888-

Zts. für Electrochemie 8-

Zts. für Physikalische Chemie

Faraday Society. Transactions 2-

Among the monumental sets are: Beilstein, Mellor, Gmelin-Kraut, Abderhalden, Richter, Thorpe, and Watt.

#### 5. Geology and Palaeontology

The Library has 6,169 volumes in this collection. The important Journals are:

Fortschritte der Geologie u. Palaeontologie

Geological Magazine n. s. 1-

Geolog. Centralblatt

Japanese Journal of Geology and Geography

Journal of Geology

Neues Jahrbuch für Mineralogie 1900-

Upsala Univ. Bull. of the Geological Institution

Deutsche Geologische Gesellschaft. Zeitschrift

Geological Society of America. Publications

Geological Society of London. Quarterly Bulletin

Palaeontographica 61-

Palaeontologische Zeitschrift

## Section 4. Biological Sciences

### 1. General Science

The University of Missouri Library is rich in scientific literature. The collection of books in science is considerably larger than the collection of books in language. There are about 6,000 volumes in general science with twice as many volumes of journals and society publications as of monographs. The Library contains the important journals and publications of the following societies:

The American Association for the Advancement of Science  
The Australian Association for the Advancement of Science  
The British Association for the advancement of Science  
The Philosophical Society of Glasgow  
Royal Society of Canada  
Royal Society of London  
The New Zealand Institute  
The Smithsonian Institution  
The New York State Museum

and the important sets: *Academie des Sciences Comptes rendus* and *The Philosophical Magazine*.

### 2. Biological Sciences

The field of biology, principally botany and zoology, has been worked in the University of Missouri for the past thirty-five years. During this time the Library has accumulated 9,460 volumes, largely periodical literature. About 5,000 of these volumes are housed in Le-fevre Hall constituting a working library for the laboratories. There are many volumes in allied subjects in the General, Agricultural, and Medical Libraries. A list of the important journals follows:

Acta Zoologica  
American Journal of Botany  
American Microscopical Society. Transactions  
Annales de Parasitologie  
Annales des Sciences Naturelles Botanique ser. 10-  
Annales Mycologici  
Annals of Applied Biology  
Annals of Botany  
L'année Biologique  
Archiv für Protistenkunde  
Archiv für Zellforschung  
Australian Journal of Experimental Biology and Medical Science  
Archives de Biologie 15-  
Archives de Zoologie Experimentale ser. 4-



Arkiv for Botanik  
Arkiv for Zoologie  
Bibliographia Zoologica  
Biological Bulletin  
Biologisches Centralblatt 30-  
Biometrika  
Botanical Abstracts  
Botanical Gazette  
Botanisches Archiv  
Botanisches Centralblatt: Beihefte  
Botanischer Jahresbericht  
British Journal of Experimental Biology  
California University. Publications—Botany, Zoology  
Cambridge Philosophical Society. Proceedings in Biological Sciences  
Cellule  
Centralblatt für Bacteriologie Abt. 2 1-  
Deutsche Botanische Gesellschaft: Berichte  
Ecology  
Flora 80-  
Genetics  
Isis  
Jahrbucher für Wissenschaftliche Botanik 25-  
Jenaische Zeitschrift für Naturwissenschaft 11, 36-  
Journal of Ecology  
Journal of Experimental Biology 7-  
Journal of Experimental Zoology  
Journal of Genetics  
Journal of Morphology  
Missouri Botanical Garden. Annals and Bulletins  
Mitteilungen aus der Zoologischen Station zu Neapel  
Mycologia  
Naples—Stazione Zoologica. Pubblicazioni 3-  
New Phytologist 14-  
North American Flora 3-  
Phytopathology  
Quarterly Journal of Microscopical Science  
Planta 1936-  
Review of Applied Mycology 5-  
Revue Generale de Botanique 14-  
Torrey Botanical Club. Bulletin and Memoirs  
Torreya

Zeitschrift für Botanik  
Zeitschrift für Wissenschaftliche Zoologie 67-  
Zeitschrift für Wissenschaftliche Mikroskopie 1-3, 15-  
Zoologische Jahrbücher—Zoologie 30- Anatomie 3-  
Zoologischer Anzeiger 19-  
Zoological Record  
Zoolog. Jahresberichte 1897-

### AGRICULTURAL LIBRARY

The facilities for research in agricultural subjects are second to none on the campus. The Library occupies a commodious reading room, well lighted and well ventilated on the second floor, south side of Mumford Hall. Opening out of the reading room to the east is a large stack room containing 20,605 volumes and room for tables for private study. On the west of the reading room is a seminar where the Library's large collection of about 10,000 volumes of Herd books is shelved. There are about 5,000 books on agricultural subjects in the General Library.

The collection of the publications of the U. S. Department of Agriculture, of the several state boards of Agriculture, of the Agricultural Experiment Stations of the various states, and of foreign countries is quite complete. If the research student wishes information on any phase of agriculture in Italy, France, Germany, Hawaii, South Africa, India, Japan, Brazil, and other countries he will find it in the Agricultural Library. The Library is well supplied with books, periodicals, reports and the like on fruit growing, on soil fertilization, on insects and insect pests, on dairying, on poultry raising, on horses, on cooperative marketing, on questions of rural life, on landscape architecture. It has a complete file of the publications of the International Institute of Agriculture, a complete set of Sargent, *Silva of North America*, and of Wytzman, *Genera Insectorum*. 276 periodicals are currently received, exclusive of government and experiment station publications.

### ENGINEERING LIBRARY

The Engineering Library is equipped for graduate work in chemical, civil, electrical, and mechanical engineering. It has a collection of 10,824 volumes. There are 2,597 volumes on engineering subjects in the General Library. The Engineering Library receives 91 professional journals of which many are complete or have long runs.

### JOURNALISM LIBRARY

Considerable graduate work has already been done in the field of Journalism. The Library possesses about 4,708 volumes and receives currently nearly 500 magazines and newspapers. The Library subscribes

to 120 periodicals and 160 newspapers. The literature of Journalism is not very extensive. This Library has much of the best literature. With a generous amount of money for annual purchases, the Journalism Library may become the best of its kind in a few years.

A reading room for graduate students in Journalism was opened, in 1937, in the new wing of the General Library, where a complete file of the *New York Times* from 1914 to date, other newspapers, indexes, and books may be consulted.

### LAW LIBRARY

The Law Library is housed in Tate Hall, the new law building, and offers adequate facilities for research work. Many text books have been written from its source material. It has 30,920 volumes and is supplemented by several thousand volumes in the General Library on comparative law and on legal antiquities. It receives 98 periodicals currently.

The Library contains the complete series of the reports of the Supreme Court of the United States and of the Federal, District, Circuit, and Appellate Courts, the reports of circuit and supreme Courts of all the states, the American decisions, the American Reports, Lawyers Reports, a complete file of the *Reporter system*, all of the Shepard's citations which are procurable, a collection of English ruling cases and a large collection of English reports, also complete sets of nearly all of the legal journals, both American and English, and a large collection of the latest and best text books.

### MEDICAL LIBRARY

The Medical Library is housed in the new addition of the Medical building, McAlester Hall, where there is limited room for study and for the books. There are nearly 11,259 volumes in the collection supplemented by 5,479 volumes in the General Library. Special attention has been given to the securing of all the important medical journals desired in a two year medical school, and to the completion of the journal files. Purchases have been limited for the most part to departments of Medicine, Anatomy, Physiology, Pathology, and Public Health. These fields are well covered in the 82 periodicals currently received. With few exceptions the Medical Library has complete files of its journals, many of which are rare. Virchow's *Archiv fur path. anatomie* and Pfluger's *Archiv fur die Gesamte Physiologie* are two of the most valuable periodical sets in the collection. In the field of physiology. there are 21 primary journals and as many more devoted to other fields which have articles in some phase of physiology. Professors in the School of Medicine have found the resources of the Medical Library quite adequate to their needs.

### INTER-LIBRARY LOAN

Many of the libraries in research institutions will loan books to aid the research of scholars under certain restrictions. The Library of Congress restricts the loan of books to professors in their own investigations. The University of Minnesota Library will loan books only to candidates for the doctors' degrees and to professors. Harvard University requires that books loaned be used in the library building.

The University of Missouri Library does not borrow books for the use of undergraduate students and for class use. Applications for the borrowing of books from other institutions should be made to the Librarian.

Rare books are seldom loaned. Recent books, books of fiction, and current numbers of magazines, as a rule, are not available for loan. Full information—author, title, date, edition and publisher should be given when requesting a loan. If a periodical is to be borrowed the full title, volume, number, and year should be given.

The borrower must pay express or postage in cash on the transportation one way. Members of the faculty may have charges paid on departmental funds. In such cases, an inter-department order signed by the chairman of the department is necessary.

Frequently, a photographic reprint or a reprint on a film is furnished instead of the book which may be cheaper than the transportation charge on the book.





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THE UNIVERSITY OF MISSOURI  
BULLETIN

LIBRARY SERIES 20

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OFFICIAL SERIAL  
PUBLICATIONS  
of the  
UNIVERSITY OF MISSOURI  
1945

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OFFICIAL SERIAL PUBLICATIONS  
of the  
UNIVERSITY OF MISSOURI

A CHECK LIST

Fourth Edition

Compiled by

ANN TODD

Head of the Reference Department  
University Library



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ENTERED AS SECOND CLASS MATTER JANUARY 2, 1914, AT THE POST-  
OFFICE AT COLUMBIA, MISSOURI, UNDER THE ACT OF AUGUST  
24, 1912. ISSUED THREE TIMES MONTHLY.—2,000

MAY 20, 1945



## PREFACE

Not since 1926 has a list been issued of the rapidly growing body of scientific, literary, and professional material published in the various official series of the University of Missouri. This fourth edition of the *Check List* attempts to describe in more detail those publications appearing in earlier editions and to bring up to date (December 1944) all series that have been published subsequently.

It has been compiled from several sources, notably the individual publications themselves. All but a few, which were not available, have been examined. Slight editorial changes have been made with a view toward consistency.

The publications herein listed fall into four main divisions: the University of Missouri Studies, the University of Missouri Bulletin, the publications of the College of Agriculture, and the School of Mines and Metallurgy Bulletin.

Omitted from the compilation are such publications of the University as the reports of the Board of Curators, various newsletters, commencement programs, and the like. Historical statements regarding these and others may be found in the Appendix to the first edition of the *Check List* published in 1914.

Introductory statements preceding the series have been prepared, in most instances, by the administrative officers concerned.

Publications have been listed within each main group according to the series and number printed on the cover or the title page. In instances where the numbering appears to be incorrect, the number printed on the publication has been retained.

Titles in each series of the University Bulletin have been arranged by special series number. The volume and number of each title in the University Bulletin appear in parentheses following the individual entry. The earlier bulletins in some series (Education, Engineering, Extension, Journalism, Law, Library, and Medical) were separately numbered. These have been indicated in parentheses in place of the University Bulletin number, with the appropriate designation, *i.e.*, Educ., Eng., Ext., Journ., Law, Lib., Med.

Administrative officers of the University and members of the University Library staff have graciously supplied information or made material available for this bulletin. Through the courtesy of the State Historical Society of Missouri and the Publications Office of the College of Agriculture, it was possible to examine certain publications that were not otherwise accessible. The compiler is indebted to Mr. B. E. Powell, University Librarian, for many helpful suggestions.

A. T.

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## KEY

The following symbols and abbreviations have been used:

[ ] denotes information supplied by the compiler when such information did not appear on the title page or at the beginning of the publication, and when paging was incomplete.

† denotes a publication not available for examination.

\* denotes an apparent discrepancy in the numbering of a publication.

n.d. denotes an undated publication.

n.p. denotes an unpagged publication.



# TABLE OF CONTENTS

## THE UNIVERSITY OF MISSOURI STUDIES

The University of Missouri Studies: A Quarterly of Research .....	7
The University of Missouri Studies .....	11
Literary and Linguistic Series .....	11
Mathematics Series .....	11
Philosophy and Education Series .....	11
Science Series .....	12
Social Science Series .....	12

## THE UNIVERSITY OF MISSOURI BULLETIN

General Series .....	13
Arts and Science Series .....	41
Astronomical Series .....	41
Education Series .....	43
Engineering Experiment Station Series .....	45
Extension Series .....	47
Journalism Series .....	52
Law Series (and Missouri Law Review) .....	57
Library Series .....	63
Literature Series .....	64
Medical Series .....	65
Rural Education Series .....	65
Science Series .....	66
Social Science Series .....	66
Unassigned to Any Series .....	66

## THE COLLEGE OF AGRICULTURE PUBLICATIONS

Farm Bulletins .....	68
Experiment Station Bulletins .....	70
Experiment Station Circulars .....	90
Experiment Station Research Bulletins .....	100
Extension Service Circulars .....	122
Extension Service Leaflets .....	140
Extension Service Manuals .....	142
Extension Service Project Announcements .....	143
4-H Club Circulars .....	145

## THE SCHOOL OF MINES AND METALLURGY BULLETIN

General Series .....	149
Technical Series .....	155

## INDEXES

Author .....	161
Subject .....	221



## THE UNIVERSITY OF MISSOURI STUDIES

### The University of Missouri Studies: A Quarterly of Research

In 1926 this series of research papers was begun and has appeared four times each year, with the exception of the years 1941 and 1942, in each of which only two numbers were issued. No attempt has been made to divide the field as was done in the older series which is listed subsequently; but the research character of the papers published has been rather carefully maintained. Nor has the current series been distinguished by title from that which ran from 1901 to 1921, so that citation by volume number may be ambiguous. However, the date will prevent confusion. So far the following have been published:

#### VOLUME 1

1. The Isoelectric Point for Plant Tissue and Its Importance in Absorption and Toxicity, by William J. Robbins. Parasitic and Wood-Destroying Fungi of Boone County, Missouri, by Willis E. Maneval. January 1926. 111 pp.
2. The Origin of Chert and Flint, by William Arthur Tarr. April 1926. 54 pp.
3. The Geography of the St. Francis Basin, by Samuel Tilden Bratton. July 1926. 54 pp.
4. The Transformation of the Euler Condition in the Calculus of Variations, by Lee Horace McFarlan. An Extension of the Theory of Envelopes, by Finis Omer Duncan. October 1926. 42 pp.

#### VOLUME 2

1. The Peasant Vocabulary in the Works of George Sand, by Alexander Herman Schutz. January 1927. 114 pp.
2. The Life and Works of Manuel Gutiérrez Nájera, by Nell Walker. April 1927. 83 pp.
3. The English Monastic Boroughs: A Study in Medieval History, by Norman Maclaren Trenholme. July 1927. 119 pp.
4. Browning's *Aristophanes' Apology*, by Frederick Monroe Tisdell. 46 pp. Colonial Claims to Home Rule (1764-1775): An Essay in Imperial Politics, by Charles Frederic Mullett. October 1927. 31 pp.

#### VOLUME 3

1. *Pseudopalatus Pristinus*: A New Genus and Species of Phytosaurs From Arizona, by M. G. Mehl. Some Observations on the Geography and Geology of Middle-Eastern Costa Rica, by E. B. Branson. January 1928. [73] pp.
2. Studies in the Physico-Chemical Behavior of Bacteria, by Allen E. Stearn and Esther Wagner Stearn. April 1928. 84 pp.
3. The Catullian Influence in English Lyric Poetry, circa 1600-1650, by John Bernard Emperor. July 1928. 133 pp.
4. Modern Dramatic Structure, by Dorothy Juanita Kaucher. October 1928. 183 pp.

#### VOLUME 4

1. The Musician's Arithmetic: Drill Problems for an Introduction to the Scientific Study of Musical Composition, by Max F. Meyer. January 1929. 149 pp.

2. Triassic Amphibians From the Rocky Mountain Region, by E. B. Branson and M. G. Mehl. April 1929. 87 pp.
3. Some Political Writings of James Otis, Part I, collected with an Introduction by Charles F. Mullett. July 1929. 101 pp.
4. Some Political Writings of James Otis, Part II, collected with an Introduction by Charles F. Mullett. October 1929. [74] pp.

## VOLUME 5

1. A List of Algae From Columbia, Missouri, by Francis Drouet. Common Bryophytes of the Vicinity of Columbia, Missouri, by R. E. Zirkle, J. W. Cunningham, and H. W. Rickett. January 1930. 30 pp.
2. Paleontology and Stratigraphy of the Phosphoria Formation, by Carl C. Branson. April 1930. 99 pp.
3. The Construction of Object Pronouns in the Works of Modern Spanish Writers, by Mary Evaline Buffum. July 1930. 46 pp.
4. Cappadocia as a Roman Procuratorial Province, by William Emmett Gwatkin, Jr. October 1930. 66 pp.

## VOLUME 6

1. Flora of Columbia, Missouri, by H. W. Rickett. January 1931. 84 pp.
2. The Missouri County Court: A Study of the Organization and Functions of the County Board of Supervisors in Missouri, by William Leonard Bradshaw. April 1931. 210 pp.
3. Daedalus and Thespis: The Contributions of the Ancient Dramatic Poets to Our Knowledge of the Arts and Crafts of Greece (Volume II. Sculpture, Part I), by Walter Miller. July 1931. [112] pp.
4. Daedalus and Thespis (Volume II. Sculpture, Part II), by Walter Miller. October 1931. [155] pp.

## VOLUME 7

1. Daedalus and Thespis (Volume III. Painting and Allied Arts, Part I), by Walter Miller. January 1932. [82] pp.
2. Daedalus and Thespis (Volume III. Painting and Allied Arts, Part II), by Walter Miller. April 1932. [184] pp.
3. Check-List of the Birds of Missouri, by Rudolf Bennitt. July 1932. 81 pp.
4. The Supply Function for Agricultural Commodities: A Study of the Effect of Price and Weather on the Production of Potatoes and Corn, by Harry Pelle Hartkemeier. October 1932. 79 pp.

## VOLUME 8

1. Conodont Studies Number One, by E. B. Branson and M. G. Mehl. January 1933. 72 pp.
2. Conodont Studies Number Two, by E. B. Branson and M. G. Mehl. April 1933. [95] pp.
3. Conodont Studies Number Three, by E. B. Branson and M. G. Mehl. July 1933. [91] pp.
4. Conodont Studies Number Four, by E. B. Branson, M. G. Mehl, and E. R. Branson. October 1933. [89] pp.



## VOLUME 9

1. Introduction to a Survey of Missouri Place-Names, by Robert L. Ramsay, Allen Walker Read, and Esther Gladys Leech. January 1934. 124 pp.
2. Fitting Into a Silent World: The First Six Years of Life, by Max F. Meyer. April 1934. 104 pp.
3. The Doctrine of "Rebus Sic Stantibus" in International Law, by Chesney Hill. July 1934. 93 pp.
4. The Public Utility Franchise in Missouri: The Relation of the Short-Term Franchise as an Instrument of Public Utility Regulation to the Issue of Centralization Versus Decentralization in State Administration, by J. Rhoads Foster. October 1934. 83 pp.

## VOLUME 10

1. The Reception of the Egyptian Cults by the Greeks (330-30 B.C.), by Thomas Allan Brady. January 1935. 88 pp.
2. The Survival of French in the Old District of Sainte Genevieve, by Ward Allison Dorrance. April 1935. 133 pp.
3. Mark Twain's Vocabulary: A General Survey, by Frances Guthrie Emberson. July 1935. 53 pp.
4. The Agencies of Federal Reserve Policy, by Karl R. Bopp. October 1935. 83 pp.

## VOLUME 11

1. Public Arbitration in Athenian Law, by Hansen Carmine Harrell. January 1936. 42 pp.
2. The Diplomatic History of the Bagdad Railroad, by John B. Wolf. April 1936. 107 pp.
3. Philological Studies in Honor of Walter Miller: Presented by Former Students Upon His Completion of Fifty Years of Teaching, edited by Rodney Potter Robinson. July 1936. [190] pp.
4. Township Organization in Missouri, by William L. Bradshaw and Milton Garrison. October 1936. 70 pp.

## VOLUME 12

1. Shakespeare and the Arts of Design (Architecture, Sculpture, and Painting), by Arthur H. R. Fairchild. January 1937. 198 pp.
2. A Survey of the Resident Game and Furbearers of Missouri, by Rudolf Bennitt and Werner O. Nagel. April 1937. 215 pp.
3. A List of Missouri Fungi, With Special Reference to Plant Pathogens and Wood-Destroying Species, by Willis E. Maneval. July 1937. 150 pp.
4. The Administration of Public Printing in the States, by Estal E. Sparlin. October 1937. 120 pp.

## VOLUME 13

1. A Mark Twain Lexicon, by Robert L. Ramsay and Frances Guthrie Emberson. January 1938. 278 pp.
2. Distance Geometries: A Study of the Development of Abstract Metrics, by Leonard M. Blumenthal. Introduction by Karl Menger. April 1938. 142 pp.
3. Stratigraphy and Paleontology of the Lower Mississippian of Missouri, Part I, by E. B. Branson. July 1938. 205 pp.

4. Stratigraphy and Paleontology of the Lower Mississippian of Missouri, Part II, by E. B. Branson, M. G. Mehl, A. K. Miller, Raymond Peck, I. A. Keyte, and W. M. Furnish. October 1938. 242 pp.

## VOLUME 14

1. Hjalmar Schacht: Central Banker, by Karl R. Bopp. January 1939. 91 pp.
2. The Pioneer Merchant in Mid-America, by Lewis E. Atherton. April 1939. 135 pp.
3. Milton's Rhetoric: Studies in His Defense of Liberty, by Wilbur Elwyn Gilman. July 1939. 193 pp.
4. State Auditor and Fiscal Control in Missouri Counties, by Victor D. Brannon. October 1939. 107 pp.

## VOLUME 15

1. Ballads and Songs Collected by the Missouri Folk-Lore Society, edited by H. M. Belden. January 1940. 530 pp.
2. Lewis and Clark: Linguistic Pioneers, by Elijah Harry Criswell. April 1940. ccxi, 102 pp.
3. The Effect of Exercise on the Recovery of Motor Function in the Rat, by G. Hamilton Crook. July 1940. 68 pp.
4. Secret Societies: A Cultural Study of Fraternalism in the United States, by Noel P. Gist. Foreword by Melville J. Herskovits. October 1940. 184 pp.

## VOLUME 16

1. Attempts to Define and Limit "Aggressive" Armament in Diplomacy and Strategy, by Marion William Boggs. 1941. 113 pp.
2. The American Revolution in Creative French Literature (1775-1937), by Gilbert Malcolm Fess. 1941. 119 pp.

## VOLUME 17

1. Law Enforcement in Missouri: A Decade of Centralization and Central Control in Apprehension and Prosecution (1931-1941), by J. G. Heinberg and A. C. Breckenridge. 1942. 77 pp.
2. George Gascoigne's *A Hundreth Sundrie Flowres*, edited with an Introduction and Notes by C. T. Prouty. 1942. 305 pp.

## VOLUME 18

1. The Letters of Doctor George Cheyne to Samuel Richardson (1733-1743), edited with an Introduction by Charles F. Mullett. 1943. 137 pp.
2. Selective Factors in Migration and Occupation: A Study of Social Selection in Rural Missouri, by Noel P. Gist, C. T. Pihlblad, and Cecil L. Gregory. 1943. 166 pp.
3. The Movement for Municipal Home Rule in St. Louis, by Thomas S. Barclay. 1943. 138 pp.
4. Christopher Smart: A Biographical and Critical Study, by Edward G. Ainsworth and Charles E. Noyes. 1943. 164 pp.

## VOLUME 19

1. Marsilio Ficino's Commentary on Plato's *Symposium*. The Text and a Translation, with an Introduction, by Sears Reynolds Jayne. 1944. 247 pp.

2. Shakespeare and the Tragic Theme, by Arthur H. R. Fairchild. 1944. 145 pp.
3. The Geology of Missouri, by E. B. Branson. 1944. 535 pp.
4. Neosho, Missouri, Under the Impact of Army Camp Construction: A Dynamic Situation, by Lucille T. Kohler. 1944. 121 pp.

### The University of Missouri Studies

In 1901 was started the publication of a series of research papers under the above title. It was soon divided into a number of series, as listed below, and so continued until 1921.

#### VOLUME 1

1. Contributions to a Psychological Theory of Music, by Max Meyer. June 1901. 80 pp.
2. Origin of the Covenant Vivien, by Raymond Weeks. June 1902. 64 pp.
3. The Evolution of the Northern Part of the Lowlands of Southeastern Missouri, by C. F. Marbut. July 1902. 63 pp.
4. Eileithyia, by Paul V. C. Baur. November 1902. 90 pp.
5. The Right of Sanctuary in England: A Study in Institutional History, by Norman Maclaren Trenholme. February 1903. 106 pp.

#### VOLUME 2

1. Ithaca or Leucas? by William Gwathmey Manly. April 1903. 52 pp.
2. Public Relief and Private Charity in England, by Charles A. Ellwood. December 1903. 96 pp.
3. The Process of Inductive Inference, by Frank Thilly. April 1904. 40 pp.
4. Regeneration of Crayfish Appendages, by Mary Isabelle Steele. June 1904. 47 pp.
5. The Spermatogenesis of Anax Junius, by Caroline McGill. July 1904. 15 pp.

### Literary and Linguistic Series

#### VOLUME 1

- Chevalerie Vivien. Facsimile Phototypes of the Sancti Bertini Manuscript of the Bibliothèque Municipale of Boulogne-Sur-Mer, with an Introduction and Notes by Raymond Weeks. 1909. 12 pp. 24 plates.

#### VOLUME 2

- The Cyclic Relations of the Chanson De Willame, by Theodore Ely Hamilton. July 1911. 301 pp.

### Mathematics Series

#### VOLUME 1

1. On the Definition of the Sum of a Divergent Series, by Louis Lazarus Silverman. April 1913. 100 pp.

### Philosophy and Education Series

#### VOLUME 1

1. The Treatment of Personality by Locke, Berkeley, and Hume: A Study in the Interests of Ethical Theory, of an Aspect of the Dialectic of English Empiricism, by Jay William Hudson. May 1911. 100 pp.

**Science Series****VOLUME 1**

1. Topography of the Thorax and Abdomen, by Peter Potter. August 1905. [143] pp.
2. The Flora of Columbia, Missouri, and Vicinity: An Ecological and Systematic Study of a Local Flora, by Francis Potter Daniels. January 1907. 319 pp.

**VOLUME 2**

1. An Introduction to the Mechanics of the Inner Ear, by Max Meyer. December 1907. [140] pp.
2. The Flora of Boulder, Colorado, and Vicinity, by Francis Potter Daniels. October 1911. 311 pp.

**VOLUME 3**

1. The Barite Deposits of Missouri and the Geology of the Barite District, by William Arthur Tarr. [1918.] 111 pp.

**Social Science Series****VOLUME 1**

- The Clothing Industry in New York, by Jesse Eliphalet Pope. September 1905. 339 pp.

**VOLUME 2**

1. The Social Function of Religious Belief, by William Wilson Elwang. April 1908. 103 pp.
2. The Origin and Early Development of the English Universities to the Close of the Thirteenth Century: A Study in Institutional History, by Earnest Vancourt Vaughn. August 1908. 147 pp.
3. The Origin of the Werewolf Superstition, by Caroline Taylor Stewart. April 1909. 37 pp.
4. The Transitional Period, 1788-1789, in the Government of the United States, by Frank Fletcher Stephens. July 1909. 126 pp.

**VOLUME 3**

1. Assyrian Historiography: A Source Study, by Albert Ten Eyck Olmstead. May 1916. 66 pp.
2. Antony's Oriental Policy Until the Defeat of the Parthian Expedition, by Lucile Craven. 1920. 87 pp.
3. Children Born Out of Wedlock: A Sociological Study of Illegitimacy, With Particular Reference to the United States, by George B. Mangold. June 1921. 209 pp.

## THE UNIVERSITY OF MISSOURI BULLETIN

From 1892 to 1900 various bulletins, circulars, and announcements were published and distributed, but they were not numbered consecutively or issued regularly. One number of the bulletin is known to have appeared August 25, 1893, and three more in 1894. This material was not preserved. Undoubtedly there were other bulletins.

Beginning with volume 1 number 1, February 1900, the Bulletin of the University of Missouri is consecutively numbered. Volume 1 number 1 to volume 3 number 4 had the title: Bulletin of the University of the State of Missouri. In 1911 the Bulletin was given the additional title, General Series, with a continuation of the volume number. During the years 1908 through 1914 serial publications were started in Education, Engineering, Extension, Journalism, Law, Library, Medicine, Science, and Social Science. These were numbered separately within each individual series. Beginning with volume 15, 1914, bulletins in these series, in the General Series, and later in the Literature Series for the short period that it was published, carry two separate sets of numbers, one in the University of Missouri Bulletin and the other in the individual series. The former serial numbers have been indicated in parentheses following the individual titles.

### General Series

Published monthly

The object of this series is to furnish information regarding the University and its colleges and schools. It consists of the Catalog and the individual announcements of the different divisions of the University.

#### VOLUME 1

1. Summer School, 1900. February 1900. [13] pp.
2. Announcement to Teachers of Work in Progress in Certain Classes, 1900. February 1900. 7 pp.
- 2\* Catalogue, Fifty-eighth Report of the Curators to the Governor of the State, 1899-1900. May 1900. 224 pp.
3. Circular of Information. June 1900. n.p.
4. Department of Medicine. July 1900. n.p.
5. School of Engineering. August 1900. 4 pp.
6. The Growth of the University. September 1900. 4 pp.
7. Short Winter Courses in Agriculture and Horticulture. October 1900. n.p.
8. Short Winter Courses in Agriculture and Horticulture. November 1900. 16 pp.

#### VOLUME 2

1. Circular of Information. January 1901. n.p.
2. Announcement to Teachers of Work in Progress in Certain Classes, 1901. February 1901. 8 pp.
3. Summer School, 1901. March 1901. 16 pp.
4. Department of Law. April 1901. n.p.
5. Catalogue, Fifty-ninth Report of the Curators to the Governor of the State, 1900-1901. May 1901. 268 pp.
6. Department of Medicine. June 1901. n.p.

7. Circular of Information. July 1901. 4 pp.
8. Department of Engineering. August 1901. 4 pp.
9. Agriculture, Mechanic Arts, Household Economics. September 1901. 4 pp.
10. Special Winter Courses in Agriculture, Horticulture, and Dairying. October 1901. n.p.
- 10.\* Results of a Religious Census of Columbia. November 1901. 4 pp.
12. Short Winter Courses in Agriculture, Horticulture, and Dairying. December 1901. 16 pp.

## VOLUME 3

1. Buildings, Libraries, Laboratories. January 1902. [4] pp.
2. Growth in Eleven Years, 1890-1901. February 1902. 4 pp.
3. Summer Session for 1902. March 1902. 15 pp.
4. Department of Law. April 1902. 4 pp.
5. Announcement of the Department of Medicine, 1902-1903. May 1902. 19 pp.
6. Catalogue, Sixtieth Report of the Curators to the Governor of the State, 1901-1902. June 1902. 244 pp.
7. Circular of Information. July 1902. 4 pp.
8. School of Engineering. August 1902. 4 pp.
9. School of Agriculture. September 1902. 4 pp.
10. Special Winter Courses in Agriculture, Animal Husbandry, Horticulture, and Dairying. October 1902. 4 pp.
11. Short Winter Courses in Agriculture, Animal Husbandry, Horticulture, and Dairying. November 1902. 18 pp.
12. What the University Has Done for Missouri. December 1902. 11 pp.

## VOLUME 4

1. The Condition of the Almshouses of Missouri. January 1903. 6 pp.
- [1.] The Condition of the County Jails of Missouri. Supplement. n.d. 8 pp.
2. Former Students Living in Missouri. February 1903. 24 pp.
3. Summer Session for 1903. March 1903. 16 pp.
4. Department of Law. April 1903. 4 pp.
5. Catalogue, Sixty-first Report of the Curators to the Governor of the State, 1902-1903. May 1903. 242 pp.
6. Department of Medicine [With Views]. June 1903. n.p.
7. Circular of Information [With Views]. July 1903. n.p.
8. School of Engineering [With Views]. August 1903. n.p.
9. College of Agriculture [With Views]. September 1903. n.p.
10. College of Agriculture Short Winter Courses in Agriculture, Dairying, and Animal Husbandry. October 1903. 16 pp.
11. Parker Memorial Hospital [With Views]. November 1903. n.p.
12. Student Homes of the University of Missouri. December 1903. 12 pp.

## VOLUME 5

1. Former Students Living in Missouri. January 1904. 28 pp.
2. Academic Department Circular of Information. February 1904. [12] pp.
3. Summer Session for 1904. March 1904. 16 pp.
4. Department of Law Announcement, 1904-1905. April 1904. 27 pp.

5. Catalogue, Sixty-second Report of the Curators to the Governor of the State, 1903-1904. May 1904. 292 pp.
6. Department of Medicine. June 1904. 7 pp.
7. Circular of Information. July 1904. 4 pp.
8. School of Engineering. August 1904. 4 pp.
9. College of Agriculture. September 1904. 4 pp.
10. College of Agriculture Short Winter Courses: Agriculture, Dairying, and Animal Husbandry. October 1904. 19 pp.
11. What the University Has Done for Missouri. November 1904. [17] pp.
12. Growth in Thirteen Years, 1890-1903. December 1904. 4 pp.

## VOLUME 6

1. [Views of] the University of Missouri. January 1905. [52] pp.
2. Catalogue, Sixty-third Report of the Curators to the Governor of the State, 1904-1905. February 1905. 345 pp.
3. Summer Session for 1905. March 1905. 25 pp.
4. Department of Law Announcement, 1905-1906. April 1905. 24 pp.
5. Academic Department Circular of Information, 1905-1906. May 1905. 16 pp.
6. Department of Medicine Announcement, 1905-1906. June 1905. 16 pp.
- 6.\* Teachers College Announcement, 1905-1906. June 1905. 4 pp.
7. General Announcement, 1905-1906. July 1905. 16 pp.
8. School of Engineering Circular of Information, 1905-1906. August 1905. 26 pp.
9. College of Agriculture Announcement, 1905-1906. September 1905. 20 pp.
10. College of Agriculture Short Winter Courses: Agriculture, Dairying, and Animal Husbandry. October 1905. 16 pp.
11. Obligations and Opportunities of the Churches at the University of Missouri. November 1905. 4 pp.
12. Announcement of the Second Semester, 1906. December 1905. 4 pp.

## VOLUME 7

1. Purpose of the Summer Session. January 1906. [4] pp.
2. [Views of the] University of Missouri. February 1906. 32 pp.
3. Academic Department, Teachers College, 1906-1907. March 1906. 35 pp.
4. Department of Law Announcement, 1906-1907. April 1906. 24 pp.
5. Catalogue, Sixty-fourth Report of the Curators to the Governor of the State, 1905-1906. May 1906. 398 pp.
6. Department of Medicine. June 1906. n.p.
7. General Announcement. July 1906. 8 pp.
8. School of Engineering Circular of Information, 1906-1907. August 1906. [13] pp.
9. College of Agriculture Announcement, 1906-1907. September 1906. 16 pp.
10. College of Agriculture Short Winter Courses: Agriculture, Dairying, and Animal Husbandry. October 1906. 18 pp.
11. Announcement for the Second Semester, 1907. November 1906. n.p.
12. Alumni Directory. December 1906. 105 pp.

## VOLUME 8

1. The Success of the College Graduate, by J. C. Jones. January 1907. 15 pp.
2. Views of the University of Missouri. February 1907. 31 pp.
3. Announcement of the Summer Session for 1907. March 1907. 29 pp.
4. Department of Law Announcement, 1907-1908. April 1907. [24] pp.
5. Catalogue, Sixty-fifth Report of the Curators to the Governor of the State, 1906-1907. May 1907. 427 pp.
6. The Teachers College, University of Missouri, Announcement, 1907-8. June 1907. 29 pp.
7. University of Missouri General Announcement. July 1907. n.p.
8. Department of Engineering Circular of Information, 1907-1908. August 1907. 16 pp.
9. College of Agriculture Announcement, 1907-1908. September 1907. 20 pp.
10. Medical Department Announcement, 1907-8. October 1907. 30 pp.
11. College of Agriculture Short Winter Courses: Agriculture, Dairying, and Animal Husbandry. November 1907. 23 pp.
12. Announcement for the Second Semester, 1908. December [1907]. n.p. (Bulletin marked Vol. 9, 1908)
- 12.\* Agriculture as a Career. n.d. n.p.

## VOLUME 9

1. Missouri State Military School, a Department of the University of Missouri, Announcement, 1907-8. January 1908. 16 pp.
2. Announcement of the Summer Session, 1908. February 1908. 30 pp.
3. The College of Arts and Science Announcement, 1908-9. March 1908. 48 pp.
4. Department of Law Announcement, 1908-1909. April 1908. [26] pp.
5. Catalogue, Sixty-sixth Report of the Curators to the Governor of the State, 1907-1908. May 1908. 486 pp.
6. Medical Department Announcement, 1908-9. June 1908. 27 pp.
7. Views of the University of Missouri [With Supplement]. July 1908. n.p.
8. Department of Engineering Circular of Information, 1908-1909. August 1908. 19 pp.
9. Practical Instruction for Young Farmers: Short Winter Courses. October 1908. 16 pp.
10. Not published.
11. Not published.
12. Announcement for the Second Semester, 1909. December 1908. 8 pp.

## VOLUME 10

1. Announcement of the Summer Session, 1909. January 1909. 32 pp.
2. Teachers College, University of Missouri, Announcement, 1909-1910. February 1909. 4 pp.
3. Not published.
4. School of Law Announcement, 1909-1910. April 1909. 24 pp.
5. Catalogue, Sixty-seventh Report of the Curators to the Governor of the State, 1908-1909. May 1909. 512 pp.



6. School of Medicine Announcement, 1909-10. June 1909. 24 pp.
7. Announcement of the School of Engineering, 1909-1910. July 1909. 16 pp.
8. Education for Agriculture. August 1909. 24 pp.
9. Short Winter Course in Agriculture. October 1909. 23 pp.
10. Rural Education: The Soil, by R. H. Emberson. October 1909. 8 pp.
11. Rural Education: The Horse, by R. H. Emberson. January 1910. 8 pp.
12. Second Semester Courses, 1910. December 1909. 18 pp.

## VOLUME 11

1. Announcement of the Summer Session, 1910. January 1910. 32 pp.
2. Announcement of the School of Education, 1910-11. February 1910. 38 pp.
3. Not published.
4. School of Law Announcement, 1910-1911. April 1910. 22 pp. (Bulletin marked Vol. 10)
5. Catalogue, Sixty-eighth Report of the Curators to the Governor of the State, 1909-1910. May 1910. 521 pp.
6. School of Medicine Announcement, 1910-11. June 1910. 24 pp.
7. Announcement of the School of Journalism, 1910-11. July 1910. 15 pp.
8. Education for Agriculture. August 1910. 24 pp.
9. Announcement of the School of Engineering, 1910-1911. September 1910. 20 pp. (Bulletin marked Vol. 10)
10. Short Winter Course in Agriculture. October 1910. 24 pp.
11. Second Semester Courses, 1911. November 1910. 18 pp.
12. Not published.

Note.—Beginning with volume 12 number 1, January 1911, the Bulletin was given the additional title, General Series.

## VOLUME 12

1. Announcement of the Summer Session, 1911. January 1911. 40 pp.
2. Announcement of the Graduate School, 1911-12. February 1911. 64 pp.
3. Announcement of the School of Education, 1911-12. March 1911. 27 pp.
4. Announcement of the School of Law. April 1911. 24 pp.
5. Catalogue, 1910-1911. Sixty-ninth Report of the Curators to the Governor of the State. May 1911. 531 pp.
6. Announcement of the School of Medicine, 1911-12. June 1911. 22 pp.
7. Announcement of the College of Arts and Science, 1911-12. July 1911. 40 pp.
8. Announcement of the School of Journalism, 1911-12. August 1911. 14 pp.
9. Announcement of the School of Engineering, 1911-12. September 1911. 27 pp.
10. Announcement of the College of Agriculture, Regular Session 1911-12. October 1911. 43 pp.
11. Announcement of the Two-Year Winter Course, College of Agriculture, 1911-12. November 1911. 53 pp.
12. Announcement of the Second Semester Courses, 1911-12. December 1911. 23 pp.

## VOLUME 13

1. Announcement of the Summer Session, 1912. January 1912. [48] pp.
2. Every Day at the University: A Glimpse of Student Activities With Some Views of the Buildings. February 1912. [48] pp.
3. Announcement of the Graduate School, 1912-13. March 1912. 62 pp.
4. Catalogue, Seventieth Report of the Curators to the Governor of the State, 1911-1912. Announcements, 1912-1913. April 1912. 526 pp.
5. Announcement of the School of Education, 1912-13. May 1912. [32] pp.
6. Announcement of the School of Medicine, 1912-1913. June 1912. [41] pp.
7. Announcement of the School of Law, 1912-1913. July 1912. [17] pp.
8. Announcement of the School of Journalism, 1912-13. August 1912. [17] pp.
9. Not published.
10. Announcement of the College of Agriculture, Regular Session 1912-1913. October 1912. [55] pp.
11. Announcement of the Two-Year Winter Course and the Short Courses, College of Agriculture, 1912-13. November 1912. [51] pp.
12. Announcement of the Second Semester Courses, 1912-13. December 1912. 20 pp.

## VOLUME 14

1. Announcement of the Summer Session, 1913. January 1913. [48] pp.
2. Announcement of the College of Arts and Science, 1913-14. February 1913. [34] pp.
3. Announcement of the Graduate School, 1913-14. March 1913. 61 pp.
4. Announcement of the School of Education, 1913-14. April 1913. 31 pp.
5. Catalogue, Seventy-first Report of the Curators to the Governor of the State, 1912-1913. Announcements, 1913-1914. May 1913. 488 pp.
6. Announcement of the School of Medicine, 1913-14. June 1913. [35] pp.
7. Announcement of the School of Law, 1913-14. July 1913. 34 pp.
8. Announcement of the School of Journalism, 1913-14. August 1913. [18] pp.
9. Announcement of the School of Engineering, 1913-1914. September 1913. [46] pp.
10. Announcement of the College of Agriculture, Regular Session 1913-1914. October 1913. [59] pp.
11. Announcement of the Two-Year Winter Course and Other Short Courses, College of Agriculture, 1913-14. November 1913. [43] pp.
12. Announcement of the Second Semester Courses, 1913-1914. December 1913. 22 pp.

Note.—Beginning with volume 15, 1914, each bulletin in the Education, Engineering, Extension, General, Journalism, Law, Library, Literature, Medical, Science, and Social Science Series was assigned a volume and a number in the University of Missouri Bulletin in addition to the individual series number. The former have been placed in parentheses following the individual titles. Beginning with this volume the General Series is designated by year rather than by volume.

## 1914

- [1.] Announcement of the Graduate School, 1914-1915. January 1914. 55 pp. (Vol. 15, No. 1)
- [2.] Announcement of the Summer Session, 1914. February 1914. 44 pp. (Vol. 15, No. 4)
- [3.] Catalogue, Seventy-second Report of the Curators to the Governor of the State, 1913-1914. Announcements, 1914-1915. April 1914. 464 pp. (Vol. 15, No. 10)
- 4. Announcement of the School of Education, 1914-15. May 1914. 51 pp. (Vol. 15, No. 13)
- 5. Announcement of the School of Commerce, 1914-1915. May 1914. 20 pp. (Vol. 15, No. 14)
- 6. Announcement of the School of Engineering, 1914-1915. May 1914. 48 pp. (Vol. 15, No. 15)
- 6.\* Announcement of the School of Medicine, 1914-15. June 1914. 34 pp. (Vol. 15, No. 16)
- 8. Announcement of the College of Agriculture, Regular Session 1914-1915. June 1914. 62 pp. (Vol. 15, No. 18)
- 9. Announcement of the School of Law, 1914-15. July 1914. 29 pp. (Vol. 15, No. 19)
- 8.\* Announcement of the School of Journalism, 1914-15. August 1914. 17 pp. (Vol. 15, No. 22)
- 11. Announcement of the Two-Year Winter Course and Other Short Courses, College of Agriculture, 1914-15. September 1914. 43 pp. (Vol. 15, No. 26)
- 12. The University of Missouri Month by Month: A Calendar for 1915. December 1914. n.p. (Vol. 15, No. 36)

## 1915

- 1. Announcement of the Graduate School, 1915-1916. January 1915. 64 pp. (Vol. 16, No. 1)
- 2. Announcement of the Summer Session, 1915. February 1915. 43 pp. (Vol. 16, No. 4)
- 3. Catalog, Seventy-third Report of the Curators to the Governor of the State, 1914-1915. Announcements, 1915-1916. March 1915. 539 pp. (Vol. 16, No. 7)
- 4. Announcement of the School of Engineering, 1915-1916. March 1915. 45 pp. (Vol. 16, No. 8)
- 5. Announcement of the School of Journalism, 1915-1916. April 1915. 23 pp. (Vol. 16, No. 12)
- 6. Announcement of the School of Commerce, 1915-1916. May 1915. 22 pp. (Vol. 16, No. 13)
- 7. Announcement of the School of Law, 1915-16. May 1915. 30 pp. (Vol. 16, No. 14)
- 8. Announcement of the School of Education, 1915-16. June 1915. 36 pp. (Vol. 16, No. 17)
- 9. Announcement of the School of Medicine, 1915-16. June 1915. 34 pp. (Vol. 16, No. 18)
- 10. Announcement of the College of Agriculture, 1915-1916. July 1915. 61 pp. (Vol. 16, No. 19)

11. Announcement of the Two-Year Winter Course and Other Short Courses, College of Agriculture, 1915-1916. September 1915. 50 pp. (Vol. 16, No. 26)
12. Announcement of the Graduate School, 1916-1917. October 1915. 68 pp. (Vol. 16, No. 29)

## 1916

1. Announcement of the Summer Session, 1916. February 1916. 54 pp. (Vol. 17, No. 2\*)
2. Announcement of the School of Journalism, 1916-1917. May 1916. [23] pp. (Vol. 17, No. 11)
- 4.\* Catalog, Seventy-fourth Report of the Curators to the Governor of the State, 1915-1916. Announcements, 1916-1917. April 1916. 531 pp. (Vol. 17, No. 10)
4. Announcement of the School of Engineering, 1916-1917. June 1916. [35] pp. (Vol. 17, No. 14)
5. Announcement of the School of Law, 1916-17. June 1916. 26 pp. (Vol. 17, No. 15)
6. Announcement of the College of Agriculture, 1916-1917. July 1916. 44 pp. (Vol. 17, No. 17)
7. Announcement of the School of Medicine, 1916-1917. August 1916. 33 pp. (Vol. 17, No. 20)
8. Announcement of the Two-Year Winter Course and Other Short Courses, College of Agriculture, 1916-1917. August 1916. [50] pp. (Vol. 17, No. 21)

## 1917

1. Announcement of the Graduate School, 1917-1918. January 1917. 68 pp. (Vol. 18, No. 1)
2. Announcement of the Summer Session, 1917. February 1917. 50 pp. (Vol. 18, No. 3)
3. Announcement of the School of Law, 1917-18. March 1917. 26 pp. (Vol. 17,\* No. 5)
4. Special Announcement of the Summer Session, 1917. March 1917. n.p. (Vol. 18, No. 6)
5. Special Announcement of the Summer Session, 1917. Special Courses for City Grade Teachers. March 1917. n.p. (Vol. 18, No. 7)
6. Announcement of the School of Business and Public Administration, 1917-1918. April 1917. 20 pp. (Vol. 18, No. 10)
7. Announcement of the School of Journalism, 1917-1918. May 1917. 12 pp. (Vol. 18, No. 11)
8. Catalog, Seventy-fifth Report of the Curators to the Governor of the State, 1916-1917. Announcements, 1917-1918. May 1917. 474 pp. (Vol. 18, No. 12)
9. Announcement of the School of Engineering, 1917-1918. May 1917. 31 pp. (Vol. 18, No. 13)
10. College of Agriculture Announcement, 1917-1918. June 1917. 52 pp. (Vol. 18, No. 16)
11. School of Medicine Announcement, 1917-1918. July 1917. 28 pp. (Vol. 18, No. 18)

12. Two-Year Winter Course Announcement, [College of Agriculture], 1917-1918. July 1917. 56 pp. (Vol. 18, No. 19)
13. Schedule of Courses, 1917-18. August 1917. [23] pp. (Vol. 18, No. 20)
14. Alumni Directory, 1843-1917, [compiled] by H. H. Kinyon. December 1917. 189 pp. (Vol. 18, No. 33)

## 1918

1. Graduate School Announcement, 1918-19. January 1918. 60 pp. (Vol. 19, No. 1)
2. The 1918 Summer Session Special Announcement. February 1918. 4 pp. (Vol. 19, No. 5)
3. Summer Session Announcement, 1918. February 1918. 43 pp. (Vol. 19, No. 6)
4. New Three-Term Calendar. March 1918. 4 pp. (Vol. 19, No. 7)
5. School of Engineering Announcement, 1918-19. May 1918. [32] pp. (Vol. 19, No. 13)
6. Catalog, Seventy-sixth Report of the Curators to the Governor of the State, 1917-1918. Announcements, 1918-1919. June 1918. 374 pp. (Vol. 19, No. 16)
7. School of Journalism Announcement, 1918-1919. June 1918. 12 pp. (Vol. 19, No. 17)
8. School of Law Announcement, 1918-1919. June 1918. 24 pp. (Vol. 19, No. 18)
9. College of Agriculture Announcement, 1918-19. July 1918. 51 pp. (Vol. 19, No. 19)
10. School of Business and Public Administration Announcement, 1918-19. July 1918. 22 pp. (Vol. 19, No. 20)
11. Two-Year Winter Course Announcement, [College of Agriculture], 1918-19. July 1918. 59 pp. (Vol. 19, No. 21)
12. Schedule of Courses, Fall and Winter Terms 1918-19. August 1918. 23 pp. (Vol. 19, No. 22)
13. Missouri State Military School: Reserve Officers' Training Corps (R.O.T.C.), Students' Army Training Corps (S.A.T.C.). September 1918. n.p. (Vol. 19, No. 25)

## 1919

1. The Spring and Summer Term Special Announcement, 1919. February 1919. 4 pp. (Vol. 20, No. 4)
2. Spring and Summer Term Announcement, 1919. March 1919. 59 pp. (Vol. 20, No. 7)
3. Graduate School Announcement, 1919-20. March 1919. 62 pp. (Vol. 20, No. 3)
4. School of Medicine Announcement, 1919-20. April 1919. 27 pp. (Vol. 20, No. 10)
5. School of Engineering Announcement, 1919-20. April 1919. 32 pp. (Vol. 20, No. 12)
6. College of Agriculture Announcement, 1919-20. July 1919. 52 pp. (Vol. 20, No. 17)
7. School of Business and Public Administration Announcement, 1919-20. June 1919. 23 pp. (Vol. 20, No. 18)

8. Department of Forestry of the College of Agriculture Announcement, 1919-1920. July 1919. 15 pp. (Vol. 20, No. 19)
9. Catalog, Seventy-seventh Report of the Curators to the Governor of the State, 1918-1919. Announcements, 1919-1920. July 1919. 392 pp. (Vol. 20, No. 20)
10. Two-Year Winter Course in Agriculture Announcement, 1919-20. July 1919. 52 pp. (Vol. 20, No. 21)
11. School of Journalism Announcement, 1919-20. August 1919. 13 pp. (Vol. 20, No. 22)
12. School of Law Announcement, 1919-20. August 1919. 24 pp. (Vol. 20, No. 23)
- [13.] Two-Year Winter Course in Agriculture. August 1919. n.p. (Vol. 20, No. 24)
14. Schedule of Courses, Fall and Winter Terms 1919-20. September 1919. 27 pp. (Vol. 20, No. 25)
15. Training for Social Work in the School of Business and Public Administration, 1919-1920. September 1919. 11 pp. (Vol. 20, No. 27)
- 19.\* Graduate School Announcement, 1920-21. November 1919. 64 pp. (Vol. 20, No. 32)

## 1920

1. Spring-Summer Term Announcement, 1920. March 1920. 60 pp. (Vol. 21, No. 2)
2. School for Nurses Announcement, 1920-21. March 1920. 8 pp. (Vol. 21, No. 7\*)
3. School of Journalism Announcement, 1920-21. March 1920. 15 pp. (Vol. 21, No. 8)
4. Catalog, Seventy-eighth Report of the Curators to the Governor of the State, 1919-1920. Announcements, 1920-1921. April 1920. 235 pp. (Vol. 21, No. 10)
5. School of Business and Public Administration Announcement, 1920-21. April 1920. 24 pp. (Vol. 21, No. 11)
6. School of Engineering Announcement, 1920-21. April 1920. 32 pp. (Vol. 21, No. 12)
7. College of Agriculture Announcement, 1920-21. May 1920. 48 pp. (Vol. 21, No. 13)
8. Not published.
9. School of Law Announcement, 1920-21. May 1920. 23 pp. (Vol. 21, No. 15)
10. School of Medicine Announcement, 1920-21. June 1920. 24 pp. (Vol. 21, No. 18)
11. Two-Year Winter Course in Agriculture Announcement, 1920-21. July 1920. [47] pp. (Vol. 21, No. 19)
12. Schedule of Courses, Fall Term 1920. August 1920. [18] pp. (Vol. 21, No. 22)
13. Schedule of Courses, Two-Year Winter Course in Agriculture. August 1920. [4] pp. (Vol. 21, No. 23)
14. School of Engineering: Courses for Mechanics. October 1920. n.p. (Vol. 21, No. 28)
15. Schedule of Courses, Winter Term 1921. December 1920. 20 pp. (Vol. 21, No. 34)

16. Graduate School Announcement, 1921-22. December 1920. 72 pp.  
(Vol. 21, No. 36)

## 1921

1. Special Announcement, Spring-Summer Term 1921. January 1921. n.p.  
(Vol. 22, No. 1)
2. Special Courses for Teachers. January 1921. 10 pp. (Vol. 22, No. 2)
3. Spring-Summer Term Announcement 1921. February 1921. 51 pp.  
(Vol. 22, No. 4)
4. Fifth Summer Library School, 1921. February 1921. n.p. (Vol. 22,  
No. 6)
5. School of Journalism Announcement, 1921-22. March 1921. 15 pp.  
(Vol. 22, No. 7)
6. Schedule of Courses, Spring-Summer Term 1921. March 1921. [15]  
pp. (Vol. 22, No. 8)
7. School of Engineering Announcement, 1921-22. April 1921. 35 pp.  
(Vol. 20,\* No. 10)
8. Department of Nursing Special Announcement. April 1921. n.p. (Vol.  
22, No. 11)
9. Catalog, Seventy-ninth Report of the Curators to the Governor of the  
State, 1920-1921. Announcements, 1921-1922. April 1921. 338 pp.  
(Vol. 22, No. 12)
10. Department of Nursing Announcement, 1921-22. May 1921. 7 pp.  
(Vol. 22, No. 13)
11. College of Agriculture Announcement, 1921-22. May 1921. 55 pp.  
(Vol. 22, No. 14)
12. Two-Year Winter Course in Agriculture Announcement, 1921-22. June  
1921. 51 pp. (Vol. 22, No. 17)
13. School of Law Announcement, 1921-22. June 1921. 23 pp. (Vol. 22,  
No. 18)
14. Training for Rural Social Service in the School of Business and Public  
Administration. August 1921. 7 pp. (Vol. 22, No. 22)
15. School of Medicine Announcement, 1921-22. August 1921. 20 pp.  
(Vol. 22, No. 23)
16. Schedule of Courses, Fall Term 1921. August 1921. 19 pp. (Vol. 22,  
No. 24)
17. Graduate School Announcement, 1922-23. November 1921. 70 pp.  
(Vol. 22, No. 31)
18. Schedule of Courses, Winter Term 1922. December 1921. 20 pp. (Vol.  
22, No. 32)

## 1922

1. Department of Nursing Special Announcement. January 1922. n.p.  
(Vol. 23, No. 2)
2. Department of Nursing Announcement, 1922-23. January 1922. 8 pp.  
(Vol. 23, No. 3)
3. Summer Term Announcement, 1922. January 1922. [44] pp. (Vol.  
23, No. 4)
4. Schedule of Courses, Spring Term 1922. February 1922. [111] pp. (Vol.  
23, No. 5)
5. School of Journalism Announcement, 1922-23. February 1922. 17 pp.  
(Vol. 23, No. 6)

6. School of Law Announcement, 1922-23. March 1922. [27] pp. (Vol. 23, No. 7)
7. School of Engineering Announcement, 1922-23. March 1922. [35] pp. (Vol. 23, No. 8)
8. College of Agriculture Announcement, 1922-23. March 1922. [55] pp. (Vol. 23, No. 9)
9. School of Medicine Announcement, 1922-23. April 1922. 17 pp. (Vol. 23, No. 10)
10. School of Business and Public Administration Announcement, 1922-23. April 1922. [24] pp. (Vol. 23, No. 12)
11. Short Winter Courses in Agriculture Announcement, 1922-23. May 1922. 48 pp. (Vol. 23, No. 14)
12. Catalog, Eightieth Report of the Curators to the Governor of the State, 1921-1922. Announcements, 1922-1923. May 1922. 354 pp. (Vol. 23, No. 13)
13. Schedule of Courses, Fall Term 1922. August 1922. [20] pp. (Vol. 23, No. 22)
14. Graduate School Announcement, 1923-24. November 1922. [72] pp. (Vol. 23, No. 33)
15. Schedule of Courses, Winter Term 1923. December 1922. [20] pp. (Vol. 23, No. 35)
16. Schedule of Courses, Spring Term 1923. December 1922. [8] pp. (Vol. 23, No. 36)

## 1923

1. Catalog, Eighty-first Report of the Curators to the Governor of the State, 1922-1923. Announcements, 1923-1924. January 1923. 360 pp. (Vol. 24, No. 1)
2. Summer Term Announcement, 1923. January 1923. 44 pp. (Vol. 24, No. 3)
3. Department of Nursing Announcement, 1923-24. February 1923. 8 pp. (Vol. 24, No. 5)
4. Coaching Courses in Athletics, Special Announcement, Summer Term 1923. February 1923. n.p. (Vol. 24, No. 6)
5. School of Journalism Special Announcement, 1923-24. [March 1923.] n.p. (Vol. 24, No. 9)
6. The School of Law Special Announcement, 1923-24. [April 1923.] n.p. (Vol. 24, No. 10)
7. The Tale of the Tiger. March 1923. n.p. (Vol. 24, No. 7)
8. School of Engineering Special Announcement, 1923-24. [April 1923.] n.p. (Vol. 24, No. 12)
9. College of Agriculture Special Announcement, 1923-24. May 1923. 30 pp. (Vol. 24, No. 14)
10. College of Arts and Science Honor-Rank List for 1922-1923. May 1923. n.p. (Vol. 24, No. 15)
11. Short Winter Courses in Agriculture Special Announcement, 1923-24. June 1923. 40 pp. (Vol. 24, No. 17)
12. Views of the College of Agriculture. June 1923. n.p. (Vol. 24, No. 18)
13. Schedule of Courses, First Semester 1923. September 1923. 19 pp. (Vol. 24, No. 23)



14. School of Medicine Special Announcement, 1923-24. [September 1923.] 9 pp. (Vol. 24, No. 25)
15. Graduate School Announcement, 1924-25. October 1923. 58 pp. (Vol. 24, No. 30)
16. Schedule of Courses, Second Semester 1923-24. November 1923. 24 pp. (Vol. 24, No. 33)

## 1924

1. Catalog, Eighty-second Report of the Curators to the Governor of the State, 1923-1924. Announcements, 1924-1925. January 1924. 248 pp. (Vol. 25, No. 1)
1. List of Students, January 1, 1923-June 1, 1924. Supplement to the Catalog. January 1924. [88] pp. (Vol. 25, No. 1)
2. Summer Session Announcement, 1924. January 1924. 34 pp. (Vol. 25, No. 2)
3. Summer Session at Rolla Announcement, 1924. February 1924. 11 pp. (Vol. 25, No. 4)
- 3.\* School of Journalism Announcement, 1924-25. February 1924. 23 pp. (Vol. 25, No. 4\*)
5. College of Agriculture Announcement, 1924-25. February 1924. 23 pp. (Vol. 25, No. 6)
6. Department of Nursing Announcement, 1924-25. March 1924. 8 pp. (Vol. 25, No. 7)
7. College of Arts and Science Announcement, 1924-25. March 1924. 16 pp. (Vol. 25, No. 8)
8. School of Engineering Announcement, 1924-25. March 1924. 23 pp. (Vol. 25, No. 9)
9. School of Law Announcement, 1924-25. April 1924. 19 pp. (Vol. 25, No. 10)
10. School of Business and Public Administration Announcement, 1924-25. April 1924. 19 pp. (Vol. 25, No. 11)
11. School of Medicine Announcement, 1924-25. May 1924. 11 pp. (Vol. 25, No. 13)
12. College of Agriculture Short Winter Courses Announcement, 1924-25. May 1924. 32 pp. (Vol. 25, No. 14)
13. The School of Fine Arts Announcement, 1924-25. May 1924. 23 pp. (Vol. 25, No. 15)
14. Schedule of Courses, First Semester 1924-25. September 1924. 20 pp. (Vol. 25, No. 25)
- 14.\* College of Arts and Science Honor-Rank List for 1923-1924. October 1924. n.p. (Vol. 25, No. 28)
16. School of Education Announcement, 1924-25. October 1924. 24 pp. (Vol. 25, No. 29)
17. Graduate School Announcement, 1925-26. November 1924. 60 pp. (Vol. 25, No. 33)
- 19.\* Schedule of Courses, Second Semester 1924-1925. December 1924. 20 pp. (Vol. 25, No. 34)

## 1925

1. Catalog, Eighty-third Report of the Curators to the Governor of the State, 1924-1925. Announcements, 1925-1926. January 1925. 302 pp. (Vol. 26, No. 1)

1. List of Students, June 1, 1924-June 1, 1925. Supplement to the Catalog. January 1925. [79] pp. (Vol. 26, No. 1)
2. Summer Session Announcement, 1925. January 1925. 45 pp. (Vol. 26, No. 2)
3. Summer Session at Rolla Announcement, 1925. January 1925. 15 pp. (Vol. 26, No. 3)
4. Department of Nursing Announcement, 1925-26. February 1925. 11 pp. (Vol. 26, No. 4)
5. Missouri Interscholastic Meet, Columbia, April 30, May 1 and 2, 1925. February 1925. 22 pp. (Vol. 26, No. 5)
6. School of Journalism Announcement, 1925-26. April 1925. [24] pp. (Vol. 26, No. 11)
7. College of Engineering Announcement, 1925-26. April 1925. 19 pp. (Vol. 26, No. 12)
8. School of Fine Arts Announcement, 1925-26. May 1925. [24] pp. (Vol. 26, No. 13)
9. School of Law Announcement, 1925-26. May 1925. 20 pp. (Vol. 26, No. 14)
10. College of Arts and Science Honor-Rank List for 1924-1925. May 1925. 8 pp. (Vol. 26, No. 15)
11. School of Medicine Announcement, 1925-26. June 1925. 12 pp. (Vol. 26, No. 16)
12. College of Arts and Science Announcement, 1925-26. June 1925. 8 pp. (Vol. 26, No. 17)
13. College of Agriculture Short Winter Courses Announcement, 1925-26. June 1925. 23 pp. (Vol. 26, No. 18)
14. College of Agriculture Announcement, 1925-26. July 1925. 24 pp. (Vol. 26, No. 19)
15. School of Education Announcement, 1925-26. July 1925. 18 pp. (Vol. 26, No. 20)
16. Department of Home Economics, College of Agriculture. July 1925. [8] pp. (Vol. 26, No. 21)
17. Schedule of Courses, First Semester 1925-26. August 1925. 20 pp. (Vol. 26, No. 24)
18. Graduate School Announcement, 1926-27. November 1925. [75] pp. (Vol. 26, No. 31)
- 20.\* Graduate Work in Education, University of Missouri: New Regulations, Announcement of Courses. December 1925. [12] pp. (Vol. 26, No. 34)

## 1926

1. Catalog, Eighty-fourth Report of the Curators to the Governor of the State, 1925-1926. Announcements, 1926-1927. January 1926. 330 pp. (Vol. 27, No. 1)
1. List of Students, June 1, 1925-June 1, 1926. Supplement to the Catalog. January 1926. [86] pp. (Vol. 27, No. 1)
2. Schedule of Courses, Second Semester 1925-26. January 1926. 22 pp. (Vol. 27, No. 2)
3. Twenty-third Annual Missouri Interscholastic Meet: Announcement of Contests, April 29, 30, and May 1, 1926. January 1926. 40 pp. (Vol. 27, No. 3)

4. Summer Session Announcement, 1926. January 1926. 48 pp. (Vol. 27, No. 4)
5. Summer Session at Rolla Announcement, 1926. March 1926. 18 pp. (Vol. 27, No. 9)
6. Department of Nursing Announcement, 1926-27. March 1926. 12 pp. (Vol. 27, No. 10)
7. School of Journalism Announcement, 1926-27. March 1926. 24 pp. (Vol. 27, No. 12)
8. College of Engineering Announcement, 1926-27. April 1926. [20] pp. (Vol. 27, No. 14)
9. College of Arts and Science Announcement, 1926-27. April 1926. 19 pp. (Vol. 27, No. 15)
10. College of Agriculture Announcement, 1926-27. May 1926. 31 pp. (Vol. 27, No. 18)
11. School of Law Announcement, 1926-27. May 1926. 19 pp. (Vol. 27, No. 19)
12. School of Fine Arts Announcement, 1926-27. May 1926. [24] pp. (Vol. 27, No. 20)
13. Schedule of Courses, First Semester 1926-27. June 1926. 21 pp. (Vol. 27, No. 21)
14. The Two-Year Winter Course in Agriculture Announcement, 1926-27. June 1926. 32 pp. (Vol. 27, No. 23)
15. Summer School for Town and Country Ministers. June 1926. n.p. (Vol. 27, No. 24)
16. School of Medicine Announcement, 1926-27. September 1926. [14] pp. (Vol. 27, No. 33)
17. School of Education Announcement, 1926-27. September 1926. 19 pp. (Vol. 27, No. 34)
18. College of Arts and Science Honor-Rank List for 1925-1926. October 1926. 7 pp. (Vol. 27, No. 39)
19. Graduate School Announcement, 1927-28. November 1926. 70 pp. (Vol. 27, No. 42)
20. Schedule of Courses, Second Semester 1926-27. November 1926. 22 pp. (Vol. 27, No. 43)

## 1927

1. Catalog, Eighty-fifth Report of the Curators to the Governor of the State, 1926-1927. Announcements, 1927-1928. January 1927. 347 pp. (Vol. 28, No. 1)
- I. List of Students, June 1, 1926-June 1, 1927. Supplement to the Catalog. January 1927. [31] pp. (Vol. 28, No. 1)
2. Summer Session Announcement, 1927. January 1927. 50 pp. (Vol. 28, No. 2)
3. Twenty-fourth Annual Missouri Interscholastic Meet: Announcement of Contests, May 5-6-7, 1927. February 1927. 36 pp. (Vol. 28, No. 7)
4. Department of Nursing Announcement, 1927-28. February 1927. 11 pp. (Vol. 28, No. 8)
5. Summer Session at Rolla Announcement, 1927. March 1927. [15] pp. (Vol. 28, No. 12)
6. School of Journalism Announcement, 1927-28. April 1927. 22 pp. (Vol. 28, No. 13)

7. School of Law Announcement, 1927-28. April 1927. [19] pp. (Vol. 28, No. 14)
8. Curricular Contest Examination Questions Used at the Interscholastic Meets, University of Missouri, 1926-1927. April 1927. 102 pp. (Vol. 28, No. 15)
9. College of Engineering Announcement, 1927-28. April 1927. [19] pp. (Vol. 28, No. 16)
10. School of Medicine Announcement, 1927-28. May 1927. 15 pp. (Vol. 28, No. 17)
11. The Two-Year Winter Course in Agriculture Announcement, 1927-28. May 1927. 31 pp. (Vol. 28, No. 18)
12. College of Arts and Science [Announcement, 1927-28]. May 1927. 22 pp. (Vol. 28, No. 19)
13. School of Fine Arts Announcement, 1927-28. May 1927. [24] pp. (Vol. 28, No. 20)
14. College of Agriculture Announcement, 1927-1928. June 1927. 31 pp. (Vol. 28, No. 21)
15. College of Arts and Science Honor-Rank List for 1926-1927. October 1927. 8 pp. (Vol. 28, No. 37)
16. School of Fine Arts Honor-Rank List for 1926-1927. October 1927. n.p. (Vol. 28, No. 38)
17. Schedule of Courses, First Semester 1927-28. October 1927. 23 pp. (Vol. 28, No. 39)
18. Graduate School Announcement, 1928-1929. November 1927. 71 pp. (Vol. 28, No. 44)
19. Alumni of the College of Agriculture, University of Missouri: A Directory of Graduates, 1873-1927. December 1927. 116 pp. (Vol. 28, No. 46)
20. Schedule of Courses, Second Semester 1927-28. December 1927. 23 pp. (Vol. 28, No. 47)
21. Summer Session Announcement, 1928. December 1927. 48 pp. (Vol. 28, No. 48)

## 1928

1. Catalog, Eighty-sixth Report of the Curators to the Governor of the State, 1927-1928. Announcement, 1928-1929. January 1928. 339 pp. (Vol. 29, No. 1)
1. List of Students, June 1, 1927-June 1, 1928. Supplement to the Catalog. January 1928. 94 pp. (Vol. 29, No. 1)
2. Summer Session at Rolla Announcement, 1928. January 1928. 15 pp. (Vol. 29, No. 3)
- 2.\* Twenty-fifth Annual Missouri Interscholastic Meet: Announcement of Contests, May 3-4-5, 1928. January 1928. 43 pp. (Vol. 29, No. 3\*)
4. College of Engineering Announcement, 1928-29. February 1928. 15 pp. (Vol. 29, No. 6)
5. School of Law Announcement, 1928-29. February 1928. 16 pp. (Vol. 29, No. 7)
6. School of Medicine Announcement, 1928-29. February 1928. 15 pp. (Vol. 29, No. 8)
7. School of Fine Arts Announcement, 1928-29. March 1928. 24 pp. (Vol. 29, No. 9)

8. College of Arts and Science Announcement, 1928-29. March 1928. 23 pp. (Vol. 29, No. 10)
9. School of Business and Public Administration Announcement, 1928-1929. March 1928. 20 pp. (Vol. 29, No. 11)
10. School of Journalism Announcement, 1928-29. March 1928. 20 pp. (Vol. 29, No. 12)
11. College of Agriculture Announcement, 1928-1929. April 1928. 31 pp. (Vol. 29, No. 15)
12. The Two-Year Winter Course in Agriculture Announcement, 1928-29. April 1928. 31 pp. (Vol. 29, No. 16)
13. School of Education Announcement, 1928-29. May 1928. 16 pp. (Vol. 29, No. 18)
14. Schedule of Courses, First Semester 1928-29. June 1928. 23 pp. (Vol. 29, No. 21)
15. College of Arts and Science Honor-Rank List for 1927-1928. July 1928. 7 pp. (Vol. 29, No. 27)
16. Graduate School Announcement, 1929-1930. October 1928. 72 pp. (Vol. 29, No. 38)

## 1929

1. Catalog, Eighty-seventh Report of the Curators to the Governor of the State, 1928-1929. Announcements, 1929-1930: January 1929. 363 pp. (Vol. 30, No. 1)
1. List of Students, June 1, 1928-June 1, 1929. Supplement to the Catalog. January 1929. 98 pp. (Vol. 30, No. 1)
2. Schedule of Courses, Second Semester 1928-29. January 1929. 22 pp. (Vol. 30, No. 2)
3. Summer Session Announcement, 1929. January 1929. 70 pp. (Vol. 30, No. 3)
4. Summer Session at Rolla Announcement, 1929. January 1929. 19 pp. (Vol. 30, No. 4)
5. Curricular Contest Examination Questions Used at the Interscholastic Meets, University of Missouri, 1928. February 1929. 51 pp. (Vol. 30, No. 5)
6. School of Nursing Announcement, 1929-30. February 1929. 11 pp. (Vol. 30, No. 6)
7. Twenty-sixth Annual Missouri Interscholastic Meet: Announcement of Contests, May 2-3-4, 1929. February 1929. 47 pp. (Vol. 30, No. 7)
8. College of Arts and Science Announcement, 1929-30. February 1929. 23 pp. (Vol. 30, No. 8)
9. College of Agriculture Announcement, 1929-30. March 1929. [32] pp. (Vol. 30, No. 9)
10. School of Fine Arts Announcement, 1929-30. March 1929. 31 pp. (Vol. 30, No. 10)
11. School of Journalism Announcement, 1929-30. March 1929. [24] pp. (Vol. 30, No. 11)
12. School of Medicine Announcement, 1929-30. March 1929. 15 pp. (Vol. 30, No. 12)
13. School of Law Announcement, 1929-30. April 1929. [16] pp. (Vol. 30, No. 13)

14. Winter Short-Courses in Agriculture. April 1929. 32 pp. (Vol. 30, No. 14)
15. Special Summer Session Announcement, 1929. April 1929. [8] pp. (Vol. 30, No. 15)
16. Schedule of Courses, Summer Session 1929. May 1929. 13 pp. (Vol. 30, No. 18)
17. Schedule of Courses, First Semester 1929-30. May 1929. 21 pp. (Vol. 30, No. 19)
18. College of Arts and Science Honor-Rank List for 1928-1929. September 1929. 7 pp. (Vol. 30, No. 33)
19. Graduate School Announcement, 1930-31. September 1929. [74] pp. (Vol. 30, No. 35)
20. Twenty-seventh Annual Missouri Interscholastic Meet: Announcement of Contests, May 1-2-3, 1930. November 1929. 52 pp. (Vol. 30, No. 42)
21. Schedule of Courses, Second Semester 1929-30. November 1929. 22 pp. (Vol. 30, No. 43)
22. School of Nursing Announcement, 1930-31. December 1929. 14 pp. (Vol. 30, No. 48)

## 1930

1. Catalog, Eighty-eighth Report of the Curators to the Governor of the State, 1929-1930. Announcements, 1930-1931. January 1930. 359 pp. (Vol. 31, No. 1)
1. List of Students, June 1, 1929-June 1, 1930. Supplement to the Catalog. January 1930. 109 pp. (Vol. 31, No. 1)
2. Summer Session Announcement, 1930. January 1930. 78 pp. (Vol. 31, No. 2)
3. Summer Session at Rolla Announcement, 1930. January 1930. 23 pp. (Vol. 31, No. 3)
4. Report of the State Service for Crippled Children. February 1930. 30 pp. (Vol. 31, No. 4)
5. School of Law Announcement, 1930-31. February 1930. 16 pp. (Vol. 31, No. 5)
6. School of Business and Public Administration Announcement, 1930-1931. February 1930. 23 pp. (Vol. 31, No. 6)
7. Courses for English Teachers, Special Announcement, Summer Session 1930. March 1930. 19 pp. (Vol. 31, No. 7)
8. College of Arts and Science Announcement, 1930-31. March 1930. 24 pp. (Vol. 31, No. 8)
9. College of Agriculture Announcement, 1930-31. March 1930. 24 pp. (Vol. 31, No. 9)
10. All-Missouri High School Orchestra and Chorus: A Summer Course for Musically Gifted High School Boys and Girls, 1930. April 1930. 19 pp. (Vol. 31, No. 10)
11. School of Medicine Announcement, 1930-31. April 1930. 15 pp. (Vol. 31, No. 12)
12. Schedule of Courses, First Semester 1930-31. September 1930. 23 pp. (Vol. 31, No. 25)
13. School of Journalism Announcement, 1930-31. September 1930. 24 pp. (Vol. [31], No. 26)

14. School of Education Announcement, 1930-31. September 1930. 20 pp. (Vol. 31, No. 27)
15. Winter Short Courses in Agriculture. October 1930. 32 pp. (Vol. 31, No. 28)
16. College of Arts and Science Honor-Rank List for 1929-1930. November 1930. 8 pp. (Vol. 31, No. 33)

## 1931

1. Catalog, Eighty-ninth Report of the Curators to the Governor of the State. 1930-1931. Announcements, 1931-1932. January 1931. 387 pp. (Vol. 32, No. 1)
1. List of Students, June 1, 1930-June 1, 1931. Supplement to the Catalog. January 1931. 114 pp. (Vol. 32, No. 1)
2. Graduate School Announcement, 1931-32. January 1931. 82 pp. (Vol. 32, No. 2)
3. Not published.
4. Summer Session Announcement, 1931. February 1931. 80 pp. (Vol. 32, No. 5)
5. Summer Session at Rolla Announcement, 1931. February 1931. 23 pp. (Vol. 32, No. 6)
- 8.\* Schedule of Courses, Second Semester 1930-31. March 1931. 23 pp. (Vol. 32, No. 8)
7. Advice to Young Investors, by Joseph N. Freudenberger. March 1931. 24 pp. (Vol. 32, No. 9)
8. [Report], issued by Missouri State Service for Crippled Children. April 1931. [32] pp. (Vol. 32, No. 11)
9. School of Law . . . . Announcement, 1931-32. April 1931. [20] pp. (Vol. 32, No. 12)
10. Twenty-eighth Annual Missouri Interscholastic Meet: Announcement of Contests, April 30 and May 1-3, 1931. May 1931. 29 pp. (Vol. 32, No. 13)
11. College of Arts and Science Announcement, 1931-32. May 1931. 27 pp. (Vol. 32, No. 15)
12. School of Journalism Announcement, 1931-32. June 1931. 25 pp. (Vol. 32, No. 16)
13. School of Business and Public Administration Announcement, 1931-1932. June 1931. 27 pp. (Vol. 32, No. 17)
14. All-Missouri High School Orchestra and Chorus: A Summer Course for Musically Gifted High School Boys and Girls, 1931. June 1931. 15 pp. (Vol. 32, No. 18)
15. College of Agriculture Announcement, 1931-32. July 1931. 19 pp. (Vol. 32, No. 19)
16. Schedule of Courses, First Semester 1931-32. July 1931. 23 pp. (Vol. 32, No. 21)
17. School of Education Announcement, 1931-32. August 1931. 27 pp. (Vol. 32, No. 24)
18. Clinics for Crippled Children, issued by Missouri State Service for Crippled Children. September 1931. 8 pp. (Vol. 32, No. 27)
19. Winter Short Courses, College of Agriculture. October 1931. [32] pp. (Vol. 32, No. 28)

20. College of Arts and Science Honor-Rank List for 1930-31. October 1931. 7 pp. (Vol. 32, No. 29)
21. Home Economics Department Special Announcement, 1931. October 1931. 8 pp. (Vol. 32, No. 30)
22. Graduate School Announcement, 1932-33. December 1931. 83 pp. (Vol. 32, No. 36)

## 1932

1. Catalog, Ninetieth Report of the Curators to the Governor of the State, 1931-1932. Announcements, 1932-1933. January 1932. 393 pp. (Vol. 33, No. 1)
1. List of Students, June 1, 1931-June 1, 1932. Supplement to the Catalog. January 1932. [121] pp. (Vol. 33, No. 1)
2. Summer Session Announcement, 1932. January 1932. 53 pp. (Vol. 33, No. 2)
3. School of Medicine Announcement, 1932-33. January 1932. 27 pp. (Vol. 33, No. 3)
4. School of Nursing Announcement, 1932-33. February 1932. 15 pp. (Vol. 33, No. 4)
5. College of Agriculture Announcement, 1932-33. February 1932. 20 pp. (Vol. 33, No. 5)
6. College of Arts and Science Announcement, 1932-33. February 1932. 15 pp. (Vol. 33, No. 6)
7. School of Law . . . . Announcement, 1932-33. March 1932. 16 pp. (Vol. 33, No. 7)
8. School of Journalism Announcement, 1932-33. March 1932. 23 pp. (Vol. 33, No. 8)
9. School of Education Announcement, 1932-33. March 1932. 35 pp. (Vol. 33, No. 9)
10. Summer Session at Rolla Announcement, 1932. April 1932. 19 pp. (Vol. 33, No. 10)
11. [Report], issued by Missouri State Service for Crippled Children. April 1932. 31 pp. (Vol. 33, No. 11)
12. Schedule of Courses, First Semester 1932-33. April 1932. 22 pp. (Vol. 33, No. 12)
13. The Jefferson Monument. May 1932. 11 pp. (Vol. 33, No. 13)
14. College of Arts and Science Honor-Rank List for 1931-32. October 1932. 7 pp. (Vol. 33, No. 28)
15. Anticipating Requirements, by Dr. Wilbur K. Thomas. Convocation Address, University of Missouri. October 1932. 15 pp. (Vol. 33, No. 30)
16. Graduate School Announcement, 1933-34. December 1932. 87 pp. (Vol. 33, No. 34)
17. Schedule of Courses, Second Semester 1932-33. December 1932. 21 pp. (Vol. 33, No. 35)
18. The 1933 Summer Session [Preliminary Announcement]. December 1932. n.p. (Vol. 33, No. 36)

## 1933

1. Catalog, Ninety-first Report of the Curators to the Governor of the State, 1932-1933. Announcements, 1933-1934. January 1933. 395 pp. (Vol. 34, No. 1)



1. List of Students, June 1, 1932-June 1, 1933. Supplement to the Catalog. January 1933. [102] pp. (Vol. 34, No. 1)
2. Summer Session Announcement, 1933. January 1933. 61 pp. (Vol. 34, No. 2)
3. College of Arts and Science Announcement, 1933-34. January 1933. 15 pp. (Vol. 34, No. 3)
4. School of Law . . . . Announcement, 1933-34. February 1933. 8 pp. (Vol. 34, No. 4)
5. The Engineer: His Work and His Training. College of Engineering. February 1933. [15] pp. (Vol. 34, No. 5)
6. College of Agriculture Announcement, 1933-34. February 1933. 16 pp. (Vol. 34, No. 6)
7. School of Medicine Announcement, 1933-34. May 1933. 19 pp. (Vol. 34, No. 13)
8. Summer Session at Rolla Announcement, 1933. May 1933. 8 pp. (Vol. 34, No. 14)
9. School of Nursing Announcement, 1933-34. May 1933. [12] pp. (Vol. 34, No. 15)
10. College of Arts and Science Honor-Rank List for 1932-1933. September 1933. 7 pp. (Vol. 34, No. 17)
11. Schedule of Courses, First Semester 1933-34. October 1933. 20 pp. (Vol. 34, No. 19)
12. Higher Education and the State: A Series of Radio Addresses by Missouri Educators Over Station KSD. December 1933. 46 pp. (Vol. 34, No. 23)

## 1934

1. The 1934 Summer Session [Preliminary Announcement]. January 1934. n.p. (Vol. 35, No. 2)
2. Schedule of Courses, Second Semester 1933-34. February 1934. 19 pp. (Vol. 35, No. 3)
3. School of Journalism Announcement, 1934-35. March 1934. 24 pp. (Vol. 35, No. 5)
4. Graduate School Announcement, 1934-35. February 1934. 87 pp. (Vol. 35, No. 4)
5. Summer Session Announcement, 1934. March 1934. 46 pp. (Vol. 35, No. 6)
6. Catalog, Ninety-second Report of the Curators to the Governor of the State, 1933-1934. Announcements, 1934-1935. April 1934. 401 pp. (Vol. 35, No. 7)
6. List of Students, June 1, 1933-June 1, 1934. Supplement to the Catalog. April 1934. [85] pp. (Vol. 35, No. 17\*)
7. The Engineer: His Training and Opportunities. College of Engineering. April 1934. 15 pp. (Vol. 35, No. 8)
8. School of Law . . . . Announcement, 1934-35. May 1934. 7 pp. (Vol. 35, No. 9)
9. School of Business and Public Administration Announcement, 1934-1935. May 1934. 16 pp. (Vol. 35, No. 10)
10. Summer Session at Rolla Announcement, 1934. June 1934. 10 pp. (Vol. 35, No. 11)

11. School of Medicine Announcement, 1934-35. June 1934. 18 pp. (Vol. 35, No. 12)
  12. College of Arts and Science Announcement, 1934-1935. July 1934. 15 pp. (Vol. 35, No. 13)
  13. Summer Session, 1934. July 1934. 15 pp. (Vol. 35, No. 14)
  14. Schedule of Courses, First Semester 1934-35. August 1934. 20 pp. (Vol. 35, No. 15)
  15. Courses and Activities. August 1934. n.p. (Vol. 35, No. 16)
  16. The Motive Power of Life, by Dr. Casper S. Yost. Commencement Address, University of Missouri. October 1934. 13 pp. (Vol. 35, No. 19)
  17. School of Journalism Announcement, 1934-35. Revised. October 1934. 29 pp. (Vol. 35, No. 20)
  18. College of Arts and Science Honor-Rank List for 1933-1934. December 1934. 8 pp. (Vol. 35, No. 23)
- 1935
1. Schedule of Courses, Second Semester 1934-35. January 1935. 23 pp. (Vol. 36, No. 2)
  2. The 1935 Summer Session [Preliminary Announcement]. February 1935. [4] pp. (Vol. 36, No. 4)
  3. Graduate School Announcement, 1935-36. March 1935. 90 pp. (Vol. 36, No. 5)
  4. Summer Session Announcement, 1935. March 1935. 51 pp. (Vol. 36, No. 6)
  5. Catalog, Ninety-third Report of the Curators to the Governor of the State, 1934-1935. Announcements, 1935-1936. April 1935. 383 pp. (Vol. 36, No. 7)
  5. List of Students, June 1, 1934-June 1, 1935. Supplement to the Catalog. April 1935. [99] pp. (Vol. 36, No. 7)
  6. School of Medicine Announcement, 1935-36. April 1935. 19 pp. (Vol. 36, No. 8)
  7. [Report], issued by Missouri State Service for Crippled Children. May 1935. 15 pp. (Vol. 36, No. 9)
  8. Summer Session at Rolla Announcement, 1935. May 1935. 11 pp. (Vol. 36, No. 10)
  9. College of Arts and Science Announcement, 1935-1936. June 1935. 22 pp. (Vol. 36, No. 11)
  10. All-Missouri High School Orchestra and Chorus: A Summer Course for Musically Gifted High School Boys and Girls, 1935. June 1935. n.p. (Vol. 36, No. 12)
  11. School of Law . . . . Announcement, 1935-1936. July 1935. 11 pp. (Vol. 36, No. 13)
  12. School of Nursing Announcement, 1935-36. July 1935. [11] pp. (Vol. 36, No. 14)
  13. College of Agriculture Announcement, 1935-36. August 1935. 16 pp. (Vol. 36, No. 16)
  14. Schedule of Courses, First Semester 1935-36. November 1935. 20 pp. (Vol. 36, No. 22)
  15. College of Arts and Science Honor-Rank List for 1934-1935. December 1935. 10 pp. (Vol. 36, No. 23)

## 1936

1. The 1936 Summer Session [Preliminary Announcement]. January 1936. 4 pp. (Vol. 37, No. 1)
2. Schedule of Courses, Second Semester 1935-36. January 1936. 20 pp. (Vol. 37, No. 2)
3. Graduate School Announcement, 1936-37. February 1936. 95 pp. (Vol. 37, No. 4)
4. Summer Session Announcement, 1936. February 1936. 43 pp. (Vol. 37, No. 6)
5. Catalog, Ninety-fourth Report of the Curators to the Governor of the State, 1935-1936. Announcements, 1936-1937. March 1936. 385 pp. (Vol. 37, No. 7)
5. List of Students, June 1, 1935-June 1, 1936. Supplement to the Catalog. April 1936. [99] pp. (Vol. 37, No. 7)
6. School of Education Announcement, 1936-37. March 1936. 36 pp. (Vol. 37, No. 8)
7. School of Medicine Announcement, 1936-37. March 1936. 23 pp. (Vol. 37, No. 9)
- [8.] School of Journalism Announcement, 1936-37. April 1936. 31 pp. (Vol. 37, No. 10) (Bulletin marked Journalism Series, No. 18)
9. College of Arts and Science Announcement, 1936-37. April 1936. 15 pp. (Vol. 37, No. 11)
10. Summer Session at Rolla Announcement, 1936. May 1936. 19 pp. (Vol. 37, No. 13)
11. School of Law . . . . Announcement, 1936-37. May 1936. 11 pp. (Vol. 37, No. 14)
12. College of Agriculture Announcement, 1936-37. May 1936. 16 pp. (Vol. 37, No. 15)
13. School of Nursing Announcement, 1936-37. June 1936. [11] pp. (Vol. 37, No. 16)
14. [Report], issued by Missouri State Service for Crippled Children. June 1936. 16 pp. (Vol. 37, No. 18)
15. Schedule of Courses, First Semester 1936-37. July 1936. 22 pp. (Vol. 37, No. 20)
16. School of Education: A Curriculum for Training High School Teachers of Commercial Subjects. July 1936. 8 pp. (Vol. 37, No. 21)
17. College of Arts and Science Honor-Rank List for 1935-1936. October 1936. 12 pp. (Vol. 37, No. 23)
18. The 1937 Summer Session [Preliminary Announcement]. December 1936. 4 pp. (Vol. 37, No. 25)

## 1937

1. Graduate School Announcement, 1937-38. January 1937. 102 pp. (Vol. 38, No. 2)
2. Schedule of Courses, Second Semester 1936-37. February 1937. 20 pp. (Vol. 38, No. 3)
3. College of Arts and Science Announcement, 1937-1938. February 1937. 23 pp. (Vol. 38, No. 4)

4. Catalog, Ninety-fifth Report of the Curators to the Governor of the State, 1936-1937. Announcements, 1937-1938. March 1937. 407 pp. (Vol. 38, No. 5)
4. List of Students, June 1, 1936-June 1, 1937. Supplement to the Catalog. March 1937. [113] pp. (Vol. 38, No. 5)
5. Summer Session at Rolla Announcement, 1937. March 1937. 19 pp. (Vol. 38, No. 6)
6. School of Medicine Announcement, 1937-38. April 1937. 22 pp. (Vol. 38, No. 7)
7. Summer Session Announcement, 1937. April 1937. 54 pp. (Vol. 38, No. 8)
8. School of Law . . . . Announcement, 1937-38. May 1937. 14 pp. (Vol. 38, No. 9)
9. [Report], issued by Missouri State Service for Crippled Children. May 1937. 15 pp. (Vol. 38, No. 10)
10. School of Nursing Announcement, 1937-38. June 1937. [15] pp. (Vol. 38, No. 11)
11. School of Journalism . . . . Announcement, 1937-38. June 1937. 31 pp. (Vol. 38, No. 12)
12. College of Agriculture Announcement, 1937-38. September 1937. 18 pp. (Vol. 38, No. 17)
13. Schedule of Courses, First Semester 1937-38. September 1937. 24 pp. (Vol. 38, No. 18)
14. School of Journalism . . . . Announcement, 1937-38. October 1937. 32 pp. (Vol. 38, No. 19)
15. College of Arts and Science Honor-Rank List for 1936-1937. November 1937. 10 pp. (Vol. 38, No. 21)
16. Schedule of Courses, Second Semester 1937-38. December 1937. 25 pp. (Vol. 38, No. 23)
17. The 1938 Summer Session Preliminary Announcement. December 1937. 4 pp. (Vol. 38, No. 24)

## 1938

1. Graduate School Announcement, 1938-39. January 1938. 111 pp. (Vol. 39, No. 1)
2. School of Medicine Announcement, 1938-39. January 1938. 23 pp. (Vol. 39, No. 2)
3. School of Law . . . . Announcement, 1938-39. February 1938. 15 pp. (Vol. 39, No. 3)
4. Summer Session Announcement, 1938. February 1938. 66 pp. (Vol. 39, No. 4)
5. Catalog, Ninety-sixth Report of the Curators to the Governor of the State, 1937-1938. Announcements, 1938-1939. March 1938. 415 pp. (Vol. 39, No. 5)
5. List of Students, June 1, 1937-June 1, 1938. Supplement to the Catalog. March 1938. [131] pp. (Vol. 39, No. 5)
6. Summer Session at Rolla Announcement, 1938. March 1938. 19 pp. (Vol. 39, No. 6)
7. College of Agriculture Announcement, 1938-39. April 1938. 16 pp. (Vol. 39, No. 7)

8. School of Journalism . . . . Announcement, 1938-39. April 1938. 33 pp. (Vol. 39, No. 8)
9. School of Nursing Announcement, 1938-39. May 1938. [12] pp. (Vol. 39, No. 10)
10. Schedule of Courses, First Semester 1938-39. August 1938. 28 pp. (Vol. 39, No. 16)
11. Graduate School Degrees Conferred, 1892-1937. September 1938. 112 pp. (Vol. 39, No. 18)
12. Schedule of Courses, Second Semester 1938-39. December 1938. 29 pp. (Vol. 39, No. 23)
13. The 1939 Summer Session Preliminary Announcement. December 1938. 4 pp. (Vol. 39, No. 24)

## 1939

1. College of Arts and Science Announcement, 1939-1940. January 1939. 23 pp. (Vol. 40, No. 1)
2. Interscholastic Events, 1939: Announcement and Contest Regulations. January 1939. 24 pp. (Vol. 40, No. 2)
3. School of Medicine Announcement, 1939-40. February 1939. 27 pp. (Vol. 40, No. 3)
4. School of Law . . . . Announcement, 1939-40. February 1939. 15 pp. (Vol. 40, No. 4)
5. Catalog, Ninety-seventh Report of the Curators to the Governor of the State, 1938-1939. Announcements, 1939-1940. March 1939. 435 pp. (Vol. 40, No. 5)
5. List of Students, June 1, 1938-June 1, 1939. Supplement to the Catalog. March 1939. [145] pp. (Vol. 40, No. 5)
6. Summer Session Announcement, 1939. March 1939. 72 pp. (Vol. 40, No. 6)
7. Summer Session at Rolla Announcement, 1939. April 1939. 22 pp. (Vol. 40, No. 7)
8. Graduate School Announcement, 1939-40. April 1939. 128 pp. (Vol. 40, No. 8)
9. College of Agriculture Announcement, 1939-40. June 1939. 31 pp. (Vol. 40, No. 12)
10. Schedule of Courses, First Semester 1939-40. July 1939. 29 pp. (Vol. 40, No. 13)
11. College of Arts and Science Honor-Rank Lists for 1937-1938 and 1938-1939. September 1939. 24 pp. (Vol. 40, No. 17)
12. [Report], issued by Missouri State Service for Crippled Children. September 1939. n.p. (Vol. 40, No. 18)
13. Interscholastic Events, 1940: Announcement and Contest Regulations. October 1939. [26] pp. (Vol. 40, No. 19)
14. School of Journalism . . . . Announcement, 1940-41. October 1939. 34 pp. (Vol. 40, No. 20)

## 1940

1. Schedule of Courses, Second Semester 1939-40. January 1940. 28 pp. (Vol. 41, No. 1)
2. The 1940 Summer Session Preliminary Announcement. January 1940. n.p. (Vol. 41, No. 2)

3. School of Nursing. February 1940. n.p. (Vol. 41, No. 3)
4. School of Law . . . . Announcement, 1940-41. February 1940. 16 pp. (Vol. 41, No. 4)
5. College of Engineering. March 1940. n.p. (Vol. 41, No. 5)
6. Catalog, Ninety-eighth Report of the Curators to the Governor of the State, 1939-1940. Announcements, 1940-1941. March 1940. 451 pp. (Vol. 41, No. 6)
6. List of Students, June 1, 1939-June 1, 1940. Supplement to the Catalog. March 1940. [153] pp. (Vol. 41, No. 5)
7. School of Medicine Announcement, 1940-41. April 1940. 30 pp. (Vol. 41, No. 7)
8. Summer Session Announcement, 1940. April 1940. 70 pp. (Vol. 41, No. 8)
9. Summer Session at Rolla Announcement, 1940. May 1940. 23 pp. (Vol. 41, No. 9)
10. Graduate School Announcement, 1940-41. May 1940. 132 pp. (Vol. 41, No. 10)
11. Summer Session Schedule of Courses, 1940. June 1940. 15 pp. (Vol. 41, No. 11)
12. The College of Agriculture Announcement. July 1940. n.p. (Vol. 41, No. 14)
13. Schedule of Courses, First Semester 1940-41. September 1940. 29 pp. (Vol. 41, No. 17)
14. College of Arts and Science Honor-Rank List for 1939-1940. September 1940. 13 pp. (Vol. 41, No. 18)
15. Interscholastic Events, 1941: Announcement and Contest Regulations. November 1940. [26] pp. (Vol. 41, No. 22)
16. Not published.
17. The 1941 Summer Session Preliminary Announcement. December 1940. n.p. (Vol. 41, No. 23)
18. Schedule of Courses, Second Semester 1940-41. December 1940. 29 pp. (Vol. 41, No. 24)

## 1941

1. School of Business and Public Administration Announcement, 1941-42. January 1941. 32 pp. (Vol. 42, No. 1)
2. Not published.
3. College of Engineering. February 1941. n.p. (Vol. 42, No. 3\*)
4. School of Law . . . . Announcement, 1941-42. February 1941. n.p. (Vol. 42, No. 3)
5. Not published.
- 6.\* Catalog, Ninety-ninth Report of the Curators to the Governor of the State, 1940-1941. Announcements, 1941-1942. March 1941. 473 pp. (Vol. 42, No. 6)
- 6.\* List of Students, June 1, 1940-June 1, 1941. Supplement to the Catalog. March 1941. [159] pp. (Vol. 42, No. 6)
6. Graduate School Announcement, 1941-42. April 1941. 134 pp. (Vol. 42, No. 7)
7. Summer Session Announcement, 1941. April 1941. 76 pp. (Vol. 42, No. 8)

8. School of Medicine Announcement, 1941-42. April 1941. 31 pp. (Vol. 42, No. 9)
9. Rolla Summer Session Announcement.† 1941. (Vol. 42, No. 10)
10. Summer Session Schedule of Courses, 1941. June 1941. 15 pp. (Vol. 42, No. 11)
11. School of Journalism Announcement, 1941-42. June 1941. [35] pp. (Vol. 42, No. 12)
12. Announcement of the College of Agriculture, 1941-42. September 1941. n.p. (Vol. 42, No. 17)
13. Schedule of Courses, First Semester 1941-42. September 1941. 30 pp. (Vol. 42, No. 18)
- 15.\* College of Arts and Science Honor-Rank List, 1940-1941. November 1941. 15 pp. (Vol. 42, No. 21)
15. Announcement of the School of Education. November 1941. 71 pp. (Vol. 42, No. 22)
16. The 1942 Summer Session Preliminary Announcement. December 1941. n.p. (Vol. 42, No. 23)
17. Announcement of the School of Nursing. December 1941. n.p. (Vol. 42, No. 24)

## 1942

1. Not published.
2. \* Schedule of Courses, Second Semester 1941-42. January 1942. 31 pp. (Vol. 43, No. 2)
3. School of Law . . . . Announcement, 1942-43. February 1942. n.p. (Vol. 43, No. 3)
4. The University of Missouri in Wartime. February 1942. 15 pp. (Vol. 43, No. 4)
5. School of Medicine Announcement, 1942-43. March 1942. 31 pp. (Vol. 43, No. 5)
6. Catalog, One-hundredth Report of the Curators to the Governor of the State, 1941-1942. Announcements, 1942-1943. April 1942. 471 pp. (Vol. 43, No. 7)
6. List of Students, June 1, 1941-June 1, 1942. Supplement to the Catalog. April 1942. [139] pp. (Vol. 43, No. 7)
7. Graduates of the College of Agriculture: A Directory of Graduates, 1873-1941. April 1942. 100 pp. (Vol. 43, No. 8)
8. Announcement of Interscholastic Events, 1941-42. March 1942. n.p. (Vol. 43, No. 6)
9. The College of Engineering in Wartime. May 1942. n.p. (Vol. 43, No. 9)
10. Summer Session Announcement, 1942. May 1942. 83 pp. (Vol. 43, No. 10)
11. Summer Session Revised Schedule of Courses, 1942. June 1942. 24 pp. (Vol. 43, No. 11)
12. Department of Physical Education. Vigorous Activities: Some Selected Activities for the Promotion of Physical Fitness in the Secondary School. June 1942. 27 pp. (Vol. 43, No. 12)
13. Graduate School Announcement, 1942-43. July 1942. 131 pp. (Vol. 43, No. 13)

14. The College of Arts and Science in a World at War. Announcement, School Year 1942-43. July 1942. 36 pp. (Vol. 43, No. 14)
15. School of Business and Public Administration Announcement, 1942-1943. August 1942. 32 pp. (Vol. 43, No. 15)
16. Announcement of Courses of Study in Home Economics, 1942-43. August 1942. 16 pp. (Vol. 43, No. 16)
17. Announcement of the College of Agriculture, 1942-43. September 1942. 56 pp. (Vol. 43, No. 18)
18. Schedule of Courses, First Semester 1942-43. October 1942. 31 pp. (Vol. 43, No. 19)
19. School of Journalism Announcement, 1942-43. December 1942. 37 pp. (Vol. 43, No. 23)
20. Wartime Announcements and Schedule of Courses, Second Semester 1942-43, Spring Quarter 1943. December 1942. 40 pp. (Vol. 43, No. 24)

## 1943

1. Preliminary Announcement, Summer Session 1943. January 1943. 8 pp. (Vol. 44, No. 1)
2. Not published.
3. Summer Session Announcement, 1943. February 1943. 40 pp. (Vol. 44, No. 4)
4. Home Economics, 1943-44. July 1943. 16 pp. (Vol. 44, No. 7)
- 4.\* Agriculture, 1943-44. August 1943. 16 pp. (Vol. 44, No. 8)
6. School of Medicine Announcement, 1943-44. August 1943. 31 pp. (Vol. 44, No. 9)
7. Announcement of the School of Nursing. September 1943. n.p. (Vol. 44, No. 10)
8. Catalog, One Hundred First Report of the Curators to the Governor of the State, 1942-1943. Announcements, 1943-1944. September 1943. 517 pp. (Vol. 44, No. 11)
8. List of Students, June 1, 1942-June 1, 1943. Supplement to the Catalog. September 1943. 109 pp. (Vol. 44, No. 11)
9. Schedule of Courses, Fall Quarter 1943-44. October 1943. 25 pp. (Vol. 44, No. 12)
10. Graduate School Degrees Conferred, 1892-1942. November 1943. 139 pp. (Vol. 44, No. 14)
11. Schedule of Courses, Winter Quarter 1943-44. November 1943. 25 pp. (Vol. 44, No. 15)
12. Schedule of Courses, Winter Quarter 1943-44. (A.S.T.P.) December 1943. [10] pp. (Vol. 44, No. 16)

## 1944

1. Announcement of the School of Nursing. n.d. n.p. (Vol. 45, No. 1)
2. School of Education Announcement: Special Pre-Summer Session Program for Rural and Elementary School Teachers, 1944. January 1944. n.p. (Vol. 45, No. 2)
3. The 1944 Summer Session Preliminary Announcement. February 1944. n.p. (Vol. 45, No. 3)
4. School of Law . . . . Announcement, 1944-45. February 1944. 20 pp. (Vol. 45, No. 4)



5. Schedule of Courses, Spring Quarter 1944. March 1944. 22 pp. (Vol. 45, No. 6)
6. School of Medicine Announcement, 1944-45. April 1944. 31 pp. (Vol. 45, No. 7)
7. School of Education Announcement: Special Pre-Summer Session Program of Graduate Work, 1944. April 1944. n.p. (Vol. 45, No. 8)
8. Summer Session Announcement, 1944. May 1944. 58 pp. (Vol. 45, No. 9)
9. Catalog, One Hundred Second Report of the Curators to the Governor of the State, 1943-1944. Announcements for 1944-1945. June 1944. 390 pp. (Vol. 45, No. 11)
9. List of Students, June 1, 1943-June 1, 1944. Supplement to the Catalog. June 1944. [139] pp. (Vol. 45, No. 11)
10. Schedule of Courses, Summer 1944. Revised. July 1944. 21 pp. (Vol. 45, No. 13)
11. Announcement of the School of Journalism. July 1944. [36] pp. (Vol. 45, No. 14)
12. Home Economics, 1944-45. September 1944. 16 pp. (Vol. 45, No. 17)
- 13.\* Schedule of Courses, First Semester 1944-45, Fall Quarter 1944. October 1944. 25 pp. (Vol. 45, No. 20\*)
13. College of Arts and Science Announcement: Department of Music. October 1944. 14 pp. (Vol. 45, No. 20)
14. College of Arts and Science Honor-Rank List, 1943-1944. November 1944. 8 pp. (Vol. 45, No. 21)
- 14.\* Announcement for Veterans. November 1944. 48 pp. (Vol. 45, No. 22)
16. School of Medicine Announcement, 1945-46. December 1944. 31 pp. (Vol. 45, No. 24)

### Arts and Science Series

For many years faculty members of the College of Arts and Science have published papers of a general nature. These papers have appeared in a variety of publications, sometimes issued in places remote from Missouri although dealing with matters of local interest. More frequently such papers have been published by some agency of the University other than the College of Arts and Science. Since papers of this sort and by members of this faculty are likely to appear in increasing numbers, it seems appropriate to establish an Arts and Science Series among the various bulletins published by the University.

The subject matter will be drawn from any field that is properly included in one of the departments of the College of Arts and Science. Thus, many papers may be published that are important although not suitable for publication in the University Studies.

Note.—The first number in this series is scheduled for publication early in 1945.

### Astronomical Series

Published irregularly

Numbers 1 through 16 were published under the title: Laws Observatory Bulletin of the University of Missouri. Beginning with number 17, the bulletin was published in the Astronomical Series of the University of Missouri Bulle-

tin. Numbers 31 through 34 have the title: Publications of the University of Missouri Observatory.

## VOLUME 1

1. Observations and Elements of Comet *b* 1902 (Perrine), by [F. H. Seares]. [December 1902.] 5 pp.
2. Observations of Comets, by [F. H. Seares]. [May 1904.] [5] pp.
3. Observations of Comet *a* 1904 (Brooks), by [F. H. Seares]. [August 1904.] [5] pp.
4. Observations of Comet *e* 1904 (Borrelly); Photometric Observations of *Nova Geminorum* Ch. 2387; Special Time Signals From the U. S. Naval Observatory; by [F. H. Seares]. [February 1905.] [3] pp.
5. The Polaris Vertical Circle Method of Determining Time and Azimuth, by Frederick H. Seares. April 1905. [62] pp.
6. The Algol Variable 188.1904 Draconis, by [F. H. Seares]. [November 1905.] [4] pp.
7. Photometric Investigations, by [F. H. Seares]. [December 1905.] [14] pp.
8. A Grant From the Gould Fund; General Remarks Concerning Variable Star Observations; A New Variable, 88.1906 Lacertae; Preliminary Results for V Lacertae, 110.1904; The Variable V Vulpeculae, 4.1904; Preliminary Note on Variable 108.1905 Capricorni; by [F. H. Seares]. [September 1906.] [19] pp.
9. The Algol Variable RR Draconis (188.1904); Preliminary Announcement Concerning the Algol Variable 121.1906 Draconis; by [F. H. Seares]. [January 1907.] [15] pp.
10. Announcement of Preliminary Results for Variable Stars, by [F. H. Seares]. [March 1907.] [22] pp.
11. The Variable RV Cassiopeiae (108.1904), by [E. S. Haynes]. [April 1907.] [14] pp.
12. Finding Ephemerides for Comet 1894 IV (E. Swift), by [F. H. Seares]. [July 1907.] [4] pp.
13. The Zöllner-Müller Photometer; The Gans-Crawford Telescope; The Variable X Lacertae (88.1906); The Variable V Lacertae (110.1904); by [F. H. Seares]. [December 1907.] [27] pp.
14. The Variable RV Tauri (45.1905), by [F. H. Seares and E. S. Haynes]. [March 1908.] [8] pp.
15. The Algol Variable RW Monocerotis (24.1907), by [E. S. Haynes]. Preliminary Announcements Concerning Variable Stars, by [F. H. Seares]. [July 1908.] [20] pp.
16. The Long-Period Algol Variable RZ Ophiuchi (103.1905); Preliminary Announcement Concerning SW Andromedae (5.1907); by [F. H. Seares]. [August 1908.] [12] pp.

## VOLUME 2

17. The Antalgol Variable ST Ophiuchi (52.1907); New Elements for RW Camelopardalis; by [Harlow Shapley]. [April 1911.] 16 pp.
18. The Algol Variable RX Draconis (121.1906), by [E. S. Haynes]. [April 1911.] [14] pp.
19. The Algol Variable RZ Draconis (26.1907), by [E. S. Haynes and Harlow Shapley]. [May 1911.] [14] pp.

20. Studies With the Polarizing Photometer; The Geminid Variable YZ Sagittarii (140.1908); The Lyrid Variable Z Vulpeculae (26.1900); The Algol Variable RZ Scuti (35.1908); Preliminary Note on the Variation of TU Cassiopeiae (17.1911); by Robert H. Baker. [February 1913.] [23] pp.
21. The Rotating Ellipsoid RU Camelopardalis, by Harlow Shapley. [February 1913.] [14] pp.
22. The Visual and Photographic Light Variations of RR Lyrae, by C. C. Kiess. [June 1915.] [14] pp.
23. The Visual and Photographic Light Variations of RT Aurigae, by C. C. Kiess. [June 1915.] [11] pp.
24. Investigations in Extrafocal Photometry, by Robert H. Baker and Edith E. Cummings. [March 1916.] [40] pp.
25. The Eclipsing Binary RX Herculis, by Robert H. Baker and Edith E. Cummings. [March 1916.] [22] pp.
26. The Eclipsing Binary Z Vulpeculae, by Robert H. Baker. [July 1916.] [18] pp.
27. The Eclipsing Binary TV Cassiopeiae, by Edith E. Cummings. [February 1917.] [17] pp.
28. The Eclipsing Binary u Herculis, by Robert H. Baker. [May 1917.] [24] pp.
29. The Eclipsing Binary U Coronae, by Robert H. Baker. [June 1921.] [13] pp.
30. The Eclipsing Binary U Cephei, by Robert H. Baker. [July 1921.] [11] pp.

## [VOLUME 3]

31. The Eclipsing Binary TX Herculis, by Robert H. Baker. [July 1921.] 13 pp.
32. The Eclipsing Binary RS Vulpeculae, by Robert H. Baker. [July 1921.] [13] pp.
33. The Eclipsing Binary TW Draconis, by Robert H. Baker. [July 1921.] [11] pp.
34. The Eclipsing Binary RZ Cassiopeiae, by Helen D. Hodgen. n.d. [10] pp.

## . Education Series

Published irregularly

The object of this series is to make available the results of studies and researches in education to the school systems of the state. It also includes reports of new developments in teacher education and teacher training programs which may prove of value to other teacher training institutions.

- [1.] Circular of Information to Accredited Schools, issued by the Committee on Accredited Schools. Fifth Edition, Revised. June 1911. 123 pp. (Educ. Vol. 1, No. 1)
- [2.] Rural School Consolidation in Missouri, by O. L. Kunkel and W. W. Charters. November 1911. 36 pp. (Educ. Vol. 1, No. 2)
- [3.] Journalism for Teachers, by Frank L. Martin. February 1912. 27 pp. (Educ. Vol. 1, No. 3)
- [4.] Geography of Missouri, by Frederick V. Emerson. December 1912. 74 pp. (Educ. Vol. 1, No. 4)

5. The Teaching of Poetry in the High School, by Arthur H. R. Fairchild. March 1914. 103 pp. (Vol. 15, No. 8)
- [6.] An Experimental Study of Methods of Teaching High School German, by Mamie M. Clarahan. January 1913. 32 pp. (Educ. Vol. 1, No. 6)
- [7.] Circular of Information to Accredited Schools, issued by the Committee on Accredited Schools. October 1913. 139 pp. (Educ. Vol. 2, No. 1)
8. The Kind of Scholarship Records to be Kept in Schools, by Max F. Meyer. November 1914. 15 pp. (Vol. 15, No. 32)
9. A Course of Study in Grammar Based Upon the Grammatical Errors of School Children of Kansas City, Missouri, by W. W. Charters and Edith Miller. January 1915. 45 pp. (Vol. 16, No. 2)
10. Circular of Information to Accredited Schools, issued by the Committee on Accredited Schools. Seventh Edition, Revised. January 1915. 132 pp. (Vol. 16, No. 3)
11. A Study of the Rural Schools of Saline County, Missouri, by Joseph D Oliver Elliff and Abner Jones. August 1915. 32 pp. (Vol. 16, No. 22)
12. Circular of Information to Accredited Junior Colleges, issued by the Committee on Accredited Schools and Colleges, edited by J. H. Coursault. February 1918. 182 pp. (Vol. 19, No. 4)
13. A Standard Library Organization Suggested for Missouri High Schools, by Henry Ormal Severance. April 1919. 19 pp. (Vol. 20, No. 11)
14. Related Science for Use in Vocational Home Economics Classes of Missouri High Schools, by Mary L. Klingner and Lilian Sensintaffar. October 1924. [36] pp. (Vol. 25, No. 30)
15. A School Building Program for Columbia, Missouri, by M. G. Neale. August 1925. 70 pp. (Vol. 26, No. 22)
16. A School Building Program for Joplin, Missouri,† by M. G. Neale. August 1925. 71 pp. (Vol. 26, No. 23)
17. Related Art for Home Economics Classes, by Lila M. Welch. October 1925. 59 pp. (Vol. 26, No. 28)
18. Visual Education for Teachers of Agriculture, by Sherman Dickinson. October 1925. 63 pp. (Vol. 26, No. 29)
19. Classification of Pupils in a Junior High School, by Walter J. Saupe. October 1925. 31 pp. (Vol. 26, No. 30)
20. A Study of High School Seniors of Superior Ability, by Emmett Lee Schott. April 1926. 52 pp. (Vol. 26,\* No. 13)
21. Circular of Information to Accredited Junior Colleges, issued by the Committee on Accredited Schools and Colleges. Revised Edition. October 1926. 134 pp. (Vol. 27, No. 37)
22. Missouri State School Administrative Association: Proceedings of the Thirteenth Annual Meeting, Thursday and Friday, February 4 and 5, 1926, Columbia, Missouri. November 1926. 109 pp. (Vol. 27, No. 41)
23. Secondary School Problems: I. The Increase of Secondary Schools in Missouri From 1900 to 1925; II. The Adviser of High School Girls; III. Curriculum Theory Applied to High School Chemistry Textbooks. February 1927. 48 pp. (Vol. 28, No. 5)
24. Directory of Graduates and Brief Historical Sketch of the School of Education, by [Charles William Martin and Nettie-Alice Doolittle]. June 1928. 70 pp. (Vol. 29, No. 24)

25. Individual Differences in the Reading Ability of College Students, by Ernest Mitchell Anderson. October 1928. 79 pp. (Vol. 29, No. 39)
26. A Method for Selecting the Desirable Content for Courses in Departments of Vocational Agriculture Including a Group Test on Dairy Husbandry Information, by Sherman Dickinson. November 1928. 64 pp. (Vol. 29, No. 42)
27. A School Building Program for Springfield, Missouri, by M. G. Neale, L. A. Eubank, J. C. Miller, Elroy E. Frye, and C. W. Martin. November 1928. 95 pp. (Vol. 29, No. 44)
28. A School Building Program for Moberly, Missouri, by M. G. Neale and Theodore Saam. April 1929. 54 pp. (Vol. 30, No. 16)
29. The Relation of Reported Preference to Performance in Problem Solving, by Herbert Lloyd Bowman. September 1929. 52 pp. (Vol. 30, No. 36)
30. An Elementary School Building Program for Jefferson City, Missouri, by W. W. Carpenter. November 1929. 82 pp. (Vol. 30, No. 41)
31. The Induction and Adaptation of College Freshmen, by James Conelese Miller. November 1930. 109 pp. (Vol. 31, No. 32)
32. Some Factors Affecting Teacher Supply and Demand in Missouri, by William Henry Zeigel, Jr. November 1931. 62 pp. (Vol. 32, No. 33)
33. Conference on Adult Education, June 21-23, 1934, University of Missouri, Columbia. Report of the Proceedings of the Conference, Including Papers Presented at the General Sessions and Summaries of Discussions Conducted During the Interest-Group Sessions on Agricultural, Home Economics, Industrial and Leisure Time Education, edited by Sherman Dickinson. November 1934. 106 pp. (Vol. 35, No. 22\*)
34. Handbook for Students of Vocational Agriculture: A Guide to Students Desiring to Become More Familiar With High School Procedure in General and With That of Vocational Agriculture in Particular in Order That Learning May Be More Readily and Pleasantly Acquired, formulated by Ewart B. Knight, under the direction of Sherman Dickinson. June 1938. 56 pp. (Vol. 39, No. 11)
- 85.\* Abstracts of Dissertations in Education Accepted by the University of Missouri, by A. G. Capps and H. M. Clements. October 1938. 59 pp. (Vol. 39, No. 19)
- 86.\* Suggestions for a Code of Rules and Regulations for Missouri Boards of Education, by W. W. Carpenter, A. G. Capps, and L. G. Townsend. October 1940. 57 pp. (Vol. 41, No. 20)
- 87.\* Suggestions for a Code of Rules and Regulations for Missouri Boards of Education, by W. W. Carpenter, A. G. Capps, and L. G. Townsend. October 1941. 57 pp. (Vol. 42, No. 19)

Note.—The next bulletin published in this series will be number 38.

### Engineering Experiment Station Series

Published irregularly

This series is the official publication of the Engineering Experiment Station of the University. The Station was established July 1, 1909, for research on fundamental problems in engineering and for the investigation of engineering problems of immediate interest to the people of Missouri.

The Engineering Experiment Station co-operates with the State Board of Health on problems which arise in connection with city water supplies, sewage disposal, etc.; with the State Highway Department; with the Kellogg Foundation of Michigan; and with other agencies.

The research results obtained are usually published in technical journals, the bulletins of the series being devoted in most instances to the presentation of material not well suited to publication in the national technical journals.

- [1.] Acetylene for Lighting Country Homes, by J. D. Bowles. March 1910. 34 pp. (Eng. Vol. 1, No. 1)
- [2.] Water Supply for Country Homes, by Karl A. McVey. June 1910. 54 pp. (Eng. Vol. 1, No. 2)
- [3.] Sanitation and Sewage Disposal for Country Homes, by William C. Davidson. September 1910. 70 pp. (Eng. Vol. 1, No. 3)
- [4.] The Heating Value and Proximate Analyses of Missouri Coals, by C. W. Marx and Paul Schweitzer. March 1911. [17] pp. (Eng. Vol. 2, No. 1)
- [5.] Friction and Lubrication Testing Apparatus, by Alan E. Flowers. June 1911. 20 pp. (Eng. Vol. 2, No. 2)
- [6.] An Investigation of the Road Making Properties of Missouri Stone and Gravel, by W. S. Williams and R. Warren Roberts. September 1911. 70 pp. (Eng. Vol. 2, No. 3)
- [7.] The Use of Metal Conductors to Protect Buildings From Lightning, by E. W. Kellogg. March 1912. 55 pp. (Eng. Vol. 3, No. 1)
- [8.] Firing Tests on Missouri Coal, by H. N. Sharp. June 1912. 44 pp. (Eng. Vol. 3, No. 2)
- [9.] A Report of Steam Boiler Trials Under Operating Conditions, by A. L. Westcott. September 1912. 21 pp. (Eng. Vol. 3, No. 3)
- [10.] Economics of Rural Distribution of Electric Power, by L. E. Hildebrand. March 1913. 50 pp. (Eng. Vol. 4, No. 1)
- [11.] Comparative Tests of Cylinder Oils, by M. P. Weinbach. June 1913. 28 pp. (Eng. Vol. 4, No. 2)
- [12.] Artesian Water in Missouri, by A. W. McCoy. September 1913. 73 pp. (Eng. Vol. 4, No. 3)
- [13.] Friction Tests of Lubricating Greases and Oils, by A. L. Westcott. December 1913. 71 pp. (Eng. Vol. 4, No. 4)
- [14.] A Study of the Effects of Heat on Missouri Granites, by W. A. Tarr and L. M. Neuman. September 1914. 64 pp. (Vol. 15, No. 27)
- [15.] A Preliminary Study Relating to the Water Resources of Missouri, by T. J. Rodhouse. November 1914. 35 pp. (Vol. 15, No. 33)
- [16.] The Economics of Electric Cooking, by P. W. Gumaer. September 1915. 62 pp. (Vol. 16, No. 27)
- [17.] Earth Roads and the Oiling of Roads, by H. A. La Rue. July 1916. 29 pp. (Vol. 17, No. 16)
- [18.] Heat Transmission Thru Boiler Tubes, by Edwin Allan Fessenden and Jiles William Haney. October 1916. 74 pp. (Vol. 17, No. 26)
- [19.] Geology of Missouri, by E. B. Branson. May 1918. 172 pp. Vol. 19, No. 15)
- \*20. Energy Necessary to Shear Steel at High Temperatures, by Guy D. Newton. February 1920. 16 pp. (Vol. 21, No. 4)

21. Water Supply and Sewage Disposal for Country Homes, by E. J. McCaustland. June 1920. 36 pp. (Vol. 21, No. 17)
22. Study Relating to the Water Resources of Missouri, by T. J. Rodhouse. December 1920. 57 pp. (Vol. 21, No. 35)
23. Experiments on the Extraction and Recovery of Radium From Typical American Carnotite Ores, Including Contributions to Methods of Measuring Radium, by Howard H. Barker and Herman Schlundt. September 1923. 87 pp. (Vol. 24, No. 26)
24. The Grading of Earth Roads, by Harry A. La Rue. December 1923. 24 pp. (Vol. 24, No. 34)
25. Experiments on Sunflower Seed Oil, by H. E. French and H. O. Humphrey. February 1926. 27 pp. (Vol. 27, No. 7)
26. Directory of the Alumni and Former Students of the College of Engineering, 1878-1925. March 1926. 52 pp. (Vol. 27, No. 11)
27. Tests on Lubricating Oils, by M. V. Dover. May 1928. 52 pp. (Vol. 29, No. 17)
28. Reinforced Brickwork, by Mason Vaughn. October 1928. 84 pp. (Vol. 29, No. 37)
29. A Semi-Graphical Method of Analysis for Horizontally Curved Beams, by Robert B. B. Moorman. October 1938. 36 pp. (Vol. 39, No. 20)
30. Flood Flow on Missouri Streams, by Horace W. Wood, Jr. October 1942. 86 pp. (Vol. 43, No. 20)
31. Cross-Connection Survey in Calhoun County, Michigan, by Edward Lee Stockton in co-operation with the W. K. Kellogg Foundation. November 1942. 122 pp. (Vol. 43, No. 22)
32. Cross-Connection Survey in Calhoun County, Michigan, by Edward Lee Stockton in co-operation with the W. K. Kellogg Foundation. Revised Edition. December 1943. (Vol. 44, No. 17)

### Extension Series

Published irregularly

This series of bulletins is the official publication of the Extension Division of the University, the object of which is to "serve citizens of the commonwealth who are unable to attend established institutions; to guide them in the pursuit of a more effective education; to give every person in the state an opportunity to get the most complete education possible at the lowest practicable cost; to make the University the center of every movement which concerns the interests of the state; and to bring the University and the home in close touch."

- [1.] A New Departure for University Extension. April 1913. n.p. (Ext. Vol. 1, No. 1)
- [2.] School Improvement Agencies: Suggestions for Superintendents and Principals, by W. W. Charters. July 1913. 15 pp. (Ext. Vol. 1, No. 2)
- [3.] Consolidation of Schools in Missouri, by R. H. Emberson. October 1913. 20 pp. (Ext. Vol. 1, No. 3)
- [4.] Correspondence Courses in High School Subjects: A New Departure for University Extension. November 1913. n.p. (Ext. Vol. 1, No. 4)

- [5.] Announcement of the Extension Division, 1913-1914. December 1913. 22 pp. (Ext. Vol. 1, No. 5)
- 6. The Preservation of Food in the Home, by Louise Stanley and May C. McDonald. March 1914. 38 pp. (Vol. 15, No. 7)
- 7. Care of Free Textbooks, by H. O. Severance. August 1914. n.p. (Vol. 15, No. 23)
- 8. Announcement of the Extension Division, 1914-1915. September 1914. 28 pp. (Vol. 15, No. 25)
- 9. Abnormal and Defective Children, by W. H. Pyle. October 1914. 10 pp. (Vol. 15, No. 28)
- 10. Correspondence Courses in High School Subjects: A New Departure for University Extension. November 1914. 8 pp. (Vol. 15, No. 29)
- 11. The House Fly, by M. P. Ravenel. December 1914. 6 pp. (Vol. 15, No. 35)
- 12. Correspondence Courses in High School Subjects: A New Departure for University Extension. August 1915. 8 pp. (Vol. 16, No. 23)
- 13. Announcement of the Extension Division, 1915-16. August 1915. 31 pp. (Vol. 16, No. 24)
- 14. Technical Manual Arts for General Educational Purposes, by Ira S. Griffith. January 1916. 41 pp. (Vol. 17, No. 3)
- 15. Country Roads. Paper Number One, Road Drainage, by F. P. Spalding. March 1916. 14 pp. (Vol. 17, No. 6)
- 16. Handwork in Grades One to Six, by Ella Victoria Dobbs and Juliaetta Zeitz. March 1916. 37 pp. (Vol. 17, No. 7)
- 16. Handwork in Grades One to Six, by Ella Victoria Dobbs and Juliaetta Zeitz. Reprint. November 1923. 35 pp. (Vol. 24, No. 31)
- 17. Not published.
- 18. Not published.
- 19. Correspondence Courses in High School Subjects: A New Departure for University Extension. September 1916. 8 pp. (Vol. 17, No. 22)
- 20. Announcement of the Extension Division, 1916-17. September 1916. 31 pp. (Vol. 17, No. 23)
- 21. A Manual for the Mental and Physical Examination of School Children, by William Henry Pyle. September 1916. 32 pp. (Vol. 17, No. 24)
- 22. Better Highways, by E. J. McCaustland. October 1916. 6 pp. (Vol. 17, No. 25)
- 23. The Feeding of Children, by Hildegard Kneeland. April 1917. 12 pp. (Vol. 18, No. 8)
- 24. Feeding the Baby, by Louise Stanley. April 1917. 11 pp. (Vol. 18, No. 9)
- 25. Extension Division Announcement, 1917-18. September 1917. 28 pp. (Vol. 18, No. 24)
- 26. Extension Division Announcement, 1919-20. January 1919. 28 pp. (Vol. 20, No. 1)
- 27. Extension Division Announcement of Correspondence Courses, 1919-20. October 1919. 4 pp. (Vol. 20, No. 29)
- 28. Extension Division Announcement, 1920-21. January 1920. 27 pp. (Vol. 21, No. 1)



29. A Manual for the Mental and Physical Examination of School Children, by William Henry Pyle. Revised. February 1920. 39 pp. (Vol. 21, No. 12)
30. Extension Division Announcement, 1921-22. July 1921. 36 pp. (Vol. 22, No. 20)
31. Extension Division Announcement, 1922-23. August 1922. 31 pp. (Vol. 23, No. 23)
32. Extension Division Announcement of Correspondence Courses for 1923-1924. February 1923. 8 pp. (Vol. 24, No. 4)
33. Extension Division Announcement of University Library Books for Loan. May 1923. n.p. (Vol. 24, No. 13)
34. Extension Division Announcement, 1924-25. September 1923. 30 pp. (Vol. 24, No. 27)
35. Extension Division Announcement, 1924-25. October 1923. 20 pp. (Vol. 24, No. 28)
36. Plays and Recitations. December 1923. 11 pp. (Vol. 24, No. 36)
37. Extension Class Courses Announcement, 1924-25. April 1924. 8 pp. (Vol. 25, No. 12)
38. Correspondence Courses in High School Subjects. November 1924. [8] pp. (Vol. 25, No. 31)
39. Extension Division Announcement of Correspondence Courses, 1925-26. February 1925. 24 pp. (Vol. 26, No. 6)
- 6.\* Extension Division Announcement, 1925-26. March 1925. [39] pp. (Vol. 26, No. 7)
41. Extension Class Courses Announcement, 1925-26. March 1925. 8 pp. (Vol. 26, No. 8)
42. Plays and Recitations. March 1925. 19 pp. (Vol. 26, No. 9)
43. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. November 1925. 23 pp. (Vol. 26, No. 32)
44. Extension Division Announcement of Correspondence Courses, 1926-27. February 1926. 26 pp. (Vol. 27, No. 8)
45. Extension Division Announcement of Department of Public Information. September 1926. 75 pp. (Vol. 27, No. 35)
46. Extension Class Courses Announcement, 1926-27. September 1926. 11 pp. (Vol. 27, No. 36)
47. Extension Division. The Missouri High School Debating League. October 1926. 11 pp. (Vol. 27, No. 40)
48. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. December 1926. 23 pp. (Vol. 27, No. 45)
49. Extension Division. Graduate Credit by Correspondence. December 1926. 8 pp. (Vol. 27, No. 46)
50. Extension Division Announcement of Correspondence Courses, 1927-28. March 1927. 32 pp. (Vol. 28, No. 11)
51. Extension Class Courses Announcement, 1927-1928. June 1927. 12 pp. (Vol. 28, No. 23)
52. Extension Division Announcement of Correspondence Courses, 1928. June 1927. [35] pp. (Vol. 28, No. 24)
53. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. October 1927. 27 pp. (Vol. 28, No. 40)

54. Extension Division. The Missouri High School Debating League. November 1927. 11 pp. (Vol. 28, No. 42)
55. Correspondence Courses in High School Subjects. November 1927. 10 pp. (Vol. 28, No. 43)
56. Extension Division Announcement of Correspondence Courses, 1928. April 1928. [32] pp. (Vol. 29, No. 14)
57. Extension Class Courses Announcement, 1928-1929. May 1928. 12 pp. (Vol. 29, No. 19)
58. Extension Division Announcement of Department of Public Information. May 1928. 104 pp. (Vol. 29, No. 20)
59. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. June 1928. 27 pp. (Vol. 29, No. 23)
60. Extension Division. The Missouri High School Debating League. July 1928. [12] pp. (Vol. 29, No. 26)
61. Extension Division Announcement of Correspondence Courses, 1929-1930. May 1929. [31] pp. (Vol. 30, No. 17)
62. Extension Division. The Missouri High School Debating League. May 1929. 13 pp. (Vol. 30, No. 20)
63. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. September 1929. 33 pp. (Vol. 30, No. 34)
64. Extension Division. The Missouri High School Debating League. October 1930. 13 pp. (Vol. 31, No. 30)
- 64.\* Extension Division Announcement of Department of Public Information. November 1930. 96 pp. (Vol. 31, No. 31)
66. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. December 1930. 41 pp. (Vol. 31, No. 34)
67. Extension Division Announcement of Correspondence Courses, 1931. April 1931. [35] pp. (Vol. 32, No. 10)
68. Extension Division. The Missouri High School Debating League. August 1931. 14 pp. (Vol. 32, No. 23)
69. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. November 1931. [47] pp. (Vol. 32, No. 31)
70. Extension Division Announcement of Correspondence Courses, 1932. December 1931. [36] pp. (Vol. 32, No. 34)
71. Correspondence Courses in High School Subjects. December 1931. [8] pp. (Vol. 32, No. 35)
72. Extension Division. The Missouri High School Debating League. May 1932. 13 pp. (Vol. 33, No. 14)
73. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. May 1932. [47] pp. (Vol. 33, No. 15)
74. Extension Division. The Missouri High School Debating League. October 1933. 13 pp. (Vol. 34, No. 27\*)
75. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. November 1933. [39] pp. (Vol. 34, No. 20)
- 74.\* Extension Division Announcement of Correspondence Courses, 1934. January 1934. 27 pp. (Vol. 35, No. 1)
77. Extension Division. The Missouri High School Debating League. September 1934. 12 pp. (Vol. 35, No. 18)
78. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. November 1934. [51] pp. (Vol. 35, No. 22)

79. Correspondence Courses in High School Subjects. February 1935. 7 pp. (Vol. 36, No. 3)
80. Extension Division. The Missouri High School Debating League. September 1935. 12 pp. (Vol. 36, No. 17)
81. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. November 1935. [51] pp. (Vol. 36, No. 21)
82. Extension Division. The Missouri High School Debating League. June 1936. 12 pp. (Vol. 37, No. 17)
83. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. October 1936. 63 pp. (Vol. 37, No. 22)
- 83.\* Extension Division Announcement of Correspondence Courses, 1937. January 1937. 31 pp. (Vol. 38, No. 1)
85. Extension Division. The Missouri High School Debating League. August 1937. 12 pp. (Vol. 38, No. 15)
86. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. October 1937. 58 pp. (Vol. 38, No. 20)
87. Correspondence Courses in High School Subjects. November 1937. 8 pp. (Vol. 38, No. 22)
88. Extension Division. The Missouri High School Debating League. May 1938. 14 pp. (Vol. 39, No. 9)
89. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. July 1938. 72 pp. (Vol. 39, No. 13)
90. Extension Division Announcement of Correspondence Courses, 1939. June 1939. 31 pp. (Vol. 40, No. 11)
91. Extension Division. The Missouri High School Debating League. May 1939. 14 pp. (Vol. 40, No. 9)
92. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. August 1939. 60 pp. (Vol. 40, No. 15)
93. Extension Division. The Missouri High School Debating League. June 1940. 14 pp. (Vol. 41, No. 12)
94. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. August 1940. 79 pp. (Vol. 41, No. 15)
95. Correspondence Courses in High School Subjects, 1940-41. October 1940. 8 pp. (Vol. 41, No. 19)
96. Correspondence Courses in University Subjects, 1941-42. February 1941. 32 pp. (Vol. 42, No. 4)
97. Visual Education Service: Catalog of Slides, Films, and Other Visual Aids. July 1941. 95 pp. (Vol. 42, No. 13)
98. Extension Division. The Missouri High School Debating League. August 1941. 14 pp. (Vol. 42, No. 16)
99. Visual Education Service: Catalog of Films and Other Visual Aids. November 1942. 108 pp. (Vol. 43, No. 21)
100. Visual Education Service: Catalog of Films and Other Visual Aids. July 1943. 131 pp. (Vol. 44, No. 6)
101. Correspondence Courses in University Subjects, 1943-44. October 1943. 32 pp. (Vol. 44, No. 13)
102. Visual Education Service: Catalog of Films and Other Visual Aids. August 1944. 99 pp. (Vol. 45, No. 16)

# Journalism Series

Published irregularly

This series of bulletins furnishes materials and discussions useful to the student of Journalism. As will be seen by the titles, the series has a wide range.

- [1.] Missouri Laws Affecting Newspapers, compiled and edited by Walter Williams. April 1912. 66 pp. (Journ. Vol. 1, No. 1)
- [2.] Journalism Week in Print: From Speeches by Newspaper Makers and Advertising Men at the University, May 6 to 10, 1912. May 1912. [63] pp. (Journ. Vol. 1, No. 2)
- [3.] Retail Advertising and the Newspaper, by Joseph E. Chasnoff. July 1912. 47 pp. (Journ. Vol. 1, No. 3)
- [4.] The News in the County Paper, by Charles G. Ross. March 1913. 44 pp. (Journ. Vol. 1, No. 4)
- [5.] Journalism Week, 1913: From Speeches by Newspaper Makers and Advertising Men at the University, May 12-16, 1913. May 1913. [63] pp. (Journ. Vol. 2, No. 1)
6. Building a Circulation: Methods and Ideals for Small-Town Newspapers, by J. B. Powell. February 1914. 42 pp. (Vol. 15, No. 6)
7. The Editorial Page, by Robert S. Mann. April 1914. 36 pp. (Vol. 15, No. 12)
8. Journalism Week, 1914: From Speeches by Newspaper Makers and Advertising Men at the University, May 18-22, 1914. July 1914. 69 pp. (Vol. 15, No. 20)
9. The World's Journalism, by Walter Williams. February 1915. 44 pp. (Vol. 16, No. 6)
10. Newspaper Efficiency in the Small Town, by J. B. Powell. April 1915. 42 pp. (Vol. 16, No. 11)
11. Journalism Week, 1915: From Speeches on Newspaper Work and Related Topics Delivered at the University, May 3 to 7, 1915. May 1915. 87 pp. (Vol. 16, No. 15)
12. Deskbook of the School of Journalism, Fifth Edition, Revised and Enlarged, edited by Charles G. Ross. September 1915. 84 pp. (Vol. 16, No. 25)
13. The Journalist's Library: Books for Reference and Reading, by Charles E. Kane. January 1916. 89 pp. (Vol. 17, No. 1)
14. Making the Printed Picture: A Treatise on Photoengraving Methods, by Herbert W. Smith. April 1916. 48 pp. (Vol. 17, No. 7\*)
15. The Law and the Newspaper, by Frederick W. Lehmann. December 1917. 26 pp. (Vol. 18, No. 32)
16. The Journalism of Japan, by Frank L. Martin. April 1918. 38 pp. (Vol. 19, No. 10)
17. Problems of Advertising: Addresses Delivered in Journalism Week, 1918, by George W. Eads, N. A. Huse, and M. P. Linn. September 1918. 20 pp. (Vol. 19, No. 27)
18. The Missouri Intelligencer and Boon's Lick Advertiser: A Brief History of the First American Newspaper West of St. Louis, by E. W. Stephens. May 1919. 18 pp. (Vol. 20, No. 9)

19. Deskbook of the School of Journalism. Sixth Edition, revised by Robert S. Mann. June 1919. 80 pp. (Vol. 20, No. 16)
20. The Small-Town Newspaper as a Business, by Frank W. Rucker, Benjamin S. Herbert, and J. N. Stonebraker. September 1919. 20 pp. (Vol. 20, No. 26)
21. Deskbook of the School of Journalism. Seventh Edition, revised by Robert S. Mann. September 1920. 79 pp. (Vol. 21, No. 25)
22. A Newspaperman's Library. Revised Edition, by Claire E. Ginsburg. January 1921. 123 pp. (Vol. 22, No. 19)
23. Picture Plates for the Press: Some Mechanical Phases of News and Advertising Illustration, by Herbert W. Smith. October 1921. 64 pp. (Vol. 22, No. 28)
24. Some Points on the Law of the Press, by Rome G. Brown. May 1922. 39 pp. (Vol. 23, No. 15)
25. Special Phases of Journalism: Addresses From Nine Viewpoints, Delivered at the School of Journalism of the University of Missouri. November 1922. 52 pp. (Vol. 23, No. 32)
26. The Journalism of China, by Don D. Patterson. December 1922. 89 pp. (Vol. 23, No. 34)
27. Missouri Alumni in Journalism: Graduates and Former Students of the School of Journalism, University of Missouri. April 1923. 86 pp. (Vol. 24, No. 11)
28. News and the Newspaper: From Addresses by Editors, Writers, and Readers at the Fourteenth Annual Journalism Week. September 1923. 124 pp. (Vol. 24, No. 15\*)
29. The Writer and the Publisher: Addresses Delivered at the Fifteenth Annual Journalism Week at the University of Missouri, May 12-17, 1924. June 1924. 72 pp. (Vol. 25, No. 17)
30. Women and the Newspaper: From Addresses and Discussions by Women Editors, Feature Writers, Advertising Experts, and Women Readers at the Fifteenth Annual Journalism Week. Introduction by Sara L. Lockwood. September 1924. 29 pp. (Vol. 25, No. 26)
31. Illustration in Advertising, by Horatio B. Moore. September 1924. [36] pp. (Vol. 25, No. 27)
32. Journalistic Ethics and World Affairs: Addresses Delivered at the Fifteenth Annual Journalism Week at the University of Missouri, May 12-17, 1924. November 1924. 31 pp. (Vol. 25, No. 32)
33. Deskbook of the School of Journalism. Eighth Edition, 1925, revised by Robert S. Mann. December 1924. 71 pp. (Vol. 25, No. 35)
34. Missouri Alumni in Journalism: A Directory of the Graduates and Former Students of the School of Journalism, University of Missouri, compiled and edited by Sara L. Lockwood. September 1925. 86 pp. (Vol. 26, No. 25)
35. Advertising and Publicity: Addresses Delivered at the Sixteenth Annual Journalism Week at the University of Missouri, May 4-8, 1925. September 1925. 32 pp. (Vol. 26, No. 26)
36. Journalism Week, 1925: Addresses Delivered at the School of Journalism of the University of Missouri. September 1925. 88 pp. (Vol. 26, No. 27)

37. Recent Books for Journalists, by Besse B. Marks. December 1925. 35 pp. (Vol. 26, No. 35)
38. The Circulation of the Small-City Daily, by Orland Kay Armstrong. December 1925. 20 pp. (Vol. 26, No. 36)
39. Beginnings of the Modern Newspaper: A Comparative Study of St. Louis Dailies From 1875 to 1925, by Orland Kay Armstrong. February 1926. 39 pp. (Vol. 27, No. 5)
40. Dedication of a Stone From St. Paul's Cathedral at the School of Journalism of the University of Missouri. February 1926. 31 pp. (Vol. 27, No. 6)
41. Development of the Cartoon, by Clifford K. Berryman. June 1926. 19 pp. (Vol. 27, No. 22)
42. Journalism Week, 1926: Addresses Delivered at the School of Journalism, University of Missouri. October 1926. 87 pp. (Vol. 27, No. 38)
43. Presentation of a Japanese Stone Lantern to the School of Journalism of the University of Missouri. November 1926. 31 pp. (Vol. 27, No. 44)
44. The Newspaper and Crime, by Virginia Lee Cole. January 1927. 84 pp. (Vol. 28, No. 4)
45. International News Communications: The Submarine Cable and Wireless as News Carriers, by Eugene Webster Sharp. January 1927. 43 pp. (Vol. 28, No. 3)
46. The Small Community Newspaper: Its Present-Day Possibilities and Some Suggestions in Regard Thereto as Presented During Journalism Week, 1926, at the University of Missouri, by John H. Casey. March 1927. 32 pp. (Vol. 28, No. 10)
47. Written by Students in Journalism: Selected Articles Written by Students in the School of Journalism, University of Missouri, as a Part of Their Classwork During 1926-27, edited by Sara Lawrence Lockwood. November 1927. 171 pp. (Vol. 28, No. 41)
48. Deskbook of the School of Journalism. Ninth Edition, revised by Robert S. Mann. January 1928. 48 pp. (Vol. 29, No. 2)
49. The History of Mexican Journalism, by Henry Lepidus. January 1928. 87 pp. (Vol. 29, No. 4)
50. Missouri Alumni in Journalism: A Directory of Graduates and Former Students of the School of Journalism, University of Missouri. Fifth Edition, compiled by Helen Jo Scott. April 1928. 115 pp. (Vol. 29, No. 4\*)
51. Newspapers and the Courts, addresses by Stuart H. Perry and Edward J. White. July 1928. 24 pp. (Vol. 29, No. 28)
52. A New Journalism in a New Far East, by Walter Williams. December 1928. 19 pp. (Vol. 29, No. 45)
53. The Journalism of Chile, by Senor Don Carlos G. Davila. December 1928. 14 pp. (Vol. 29, No. 46)
54. What Is Taught in Schools of Journalism: An Analysis of the Curricula of the Members of the American Association of Schools and Departments of Journalism, by Vernon Nash. December 1928. 77 pp. (Vol. 29, No. 45\*)

55. Local Government and the Press: Address Delivered at the Twentieth Annual Journalism Week at the University of Missouri, May 5-11, 1929, by Marlen E. Pew. November 1929. 14 pp. (Vol. 30, No. 44)
56. Journalism and Diplomacy, addresses by Mr. Katsuji Debuchi and by Senor Don Manuel C. Tellez. December 1929. 10 pp. (Vol. 30, No. 45)
57. News, Its Scope and Limitations: Addresses Delivered at the Twentieth Annual Journalism Week at the University of Missouri, May 5-11, 1929. December 1929. 42 pp. (Vol. 30, No. 46)
58. Organization of Journalists in Great Britain, by Walter Williams. December 1929. 39 pp. (Vol. 30, No. 47)
59. Deskbook of the School of Journalism. Tenth Edition, revised by Thomas C. Morelock. October 1930. 48 pp. (Vol. 31, No. 29)
60. Missouri Alumni in Journalism: A Directory of Graduates and Former Students of the School of Journalism, University of Missouri. Sixth Edition, compiled by Lola Anderson. December 1930. [163] pp. (Vol. 31, No. 35)
61. Visit of the German Ambassador and the Gift From the Press of His Country to the School of Journalism of the University of Missouri. December 1930. 31 pp. (Vol. 31, No. 36)
62. "For Distinguished Work in Journalism": Missouri's Honor Awards. March 1931. 19 pp. (Vol. 32, No. 37)
63. "For Distinguished Work in Journalism": Missouri's Honor Awards for 1931. August 1931. 13 pp. (Vol. 32, No. 22)
64. Presentation of Stone Lions From China and Visit of Dr. C. C. Wu, Minister of the Republic of China, to the School of Journalism of the University of Missouri. November 1931. 23 pp. (Vol. 32, No. 32)
65. Deskbook of the School of Journalism. Eleventh Edition, revised by Thomas C. Morelock. October 1932. 47 pp. (Vol. 33, No. 29)
66. Missouri's Honor Awards, 1932: "For Distinguished Work in Journalism." November 1932. 14 pp. (Vol. 33, No. 31)
67. Some Observations on the German Press, by Walter Williams. November 1932. 19 pp. (Vol. 33, No. 32)
68. The Struggle in Europe for the Freedom of the Press, by Walter Williams. November 1932. 7 pp. (Vol. 33, No. 33)
69. Missouri's Honor Awards, 1933: "For Distinguished Work in Journalism." September 1933. 15 pp. (Vol. 34, No. 25\*)
70. "For Distinguished Service in Journalism": Missouri's Honor Awards for 1934. September 1934. 15 pp. (Vol. 35, No. 17)
71. Missouri Alumni in Journalism: A Directory of Graduates and Former Students of the School of Journalism, University of Missouri. Seventh Edition. December 1934. 233 pp. (Vol. 35, No. 24)
72. Deskbook of the School of Journalism. Twelfth Edition, revised by Thomas C. Morelock. October 1935. 46 pp. (Vol. 36, No. 19)
73. "For Distinguished Service in Journalism": Missouri's Honor Awards for 1935. October 1935. 15 pp. (Vol. 36, No. 20)
74. Statutes of the State of Missouri Relating to Notice by Publication in Newspapers, compiled by J. Edward Gerald. December 1935. 54 pp. (Vol. 36, No. 34\*)

75. In Memoriam: Walter Williams, 1864-1935, edited by Roscoe B. Ellard. February 1936. [80] pp. (Vol. 37, No. 5)
76. "For Distinguished Service in Journalism": Missouri's Honor Awards for 1936. July 1936. 15 pp. (Vol. 37, No. 19)
77. The Censorship and Press Laws of Sixty Countries, by Eugene W. Sharp. November 1936. [50] pp. (Vol. 37, No. 24)
78. Deskbook of the School of Journalism. Thirteenth Edition, revised by Thomas C. Morelock. July 1937. 46 pp. (Vol. 38, No. 13)
79. "For Distinguished Service in Journalism": Missouri Honor Awards for 1937, by Roscoe Ellard. July 1937. 18 pp. (Vol. 38, No. 14)
80. Missouri Alumni in Journalism: A Directory of Graduates and Former Students of the School of Journalism, University of Missouri. Eighth Edition, compiled by Maxine Enlow. June 1938. 187 pp. (Vol. 39, No. 12)
81. "For Distinguished Service in Journalism": Missouri Honor Awards for 1938. July 1938. [23] pp. (Vol. 39, No. 14)
82. Deskbook of the School of Journalism. Fourteenth Edition, revised by Thomas C. Morelock. September 1938. 48 pp. (Vol. 39, No. 17)
83. "For Distinguished Service in Journalism": Missouri Honor Awards for 1939. May 1939. 26 pp. (Vol. 40, No. 10)
84. Measurement of Reading in Five Weekly Newspapers, by Lester E. Finley. July 1940. 52 pp. (Vol. 41, No. 13)
85. Missouri Honor Awards, 1940, for Distinguished Service in Journalism. August 1940. 20 pp. (Vol. 41, No. 16)
86. Costs of Installing and Operating a Small One-Man Photoengraving Plant, by Lester E. Finley. March 1941. 11 pp. (Vol. 42, No. 5)
87. Measurement of Reading in Weekly Newspapers, Second Series, by Lester E. Finley. August 1941. 55 pp. (Vol. 42, No. 15)
88. Missouri Honor Awards, 1941, for Distinguished Service in Journalism. July 1941. 31 pp. (Vol. 42, No. 14)
89. Deskbook of the School of Journalism. Fifteenth Edition, revised by Thomas C. Morelock. January 1942. 48 pp. (Vol. 43, No. 1)
90. Missouri Honor Awards, 1942, for Distinguished Service in Journalism. September 1942. 25 pp. (Vol. 43, No. 17)
91. Dedication of the Frank Lee Martin Memorial Library of the School of Journalism of the University of Missouri to Frank Lee Martin, 1881-1941. January 1943. 9 pp. (Vol. 44, No. 2)
92. Missouri Honor Awards for Distinguished Service in Journalism, 1943. June 1943. 23 pp. (Vol. 44, No. 5)
93. The Periodic Survey of Newspaper Reading: The Columbia Missourian, 1942-43, by Howard Rusk Long. March 1944. 42 pp. (Vol. 45, No. 5)
94. The Yun Gee Portrait of John B. Powell. May 1944. n.p. (Vol. 45, No. 10)
95. 100 Books on American Journalism, compiled and annotated by Frank Luther Mott. June 1944. n.p. (Vol. 45, No. 12)
96. Journalism Week, May 10-13, 1944, edited by Georgia Bowman. August 1944. [48] pp. (Vol. 45, No. 15)
97. Missouri Honor Awards for Distinguished Service in Journalism, 1944. September 1944. 22 pp. (Vol. 45, No. 18)



98. The First Annual Fifty-Print Exhibition of News and Feature Pictures, edited by Clifton C. Edom. October 1944. 56 pp. (Vol. 45, No. 19)
99. Deskbook of the School of Journalism. Sixteenth Edition, revised by Robert M. Neal. October 1944. 48 pp. (Vol. 45, No. 23)

### Law Series

Published quarterly

The purpose of the Law Series of the Bulletin is to offer to the bar of Missouri articles, notes, and comments dealing with the administration of justice, court decisions, and other legal problems of value to the legal profession.

- [1.] Estates Tail in Missouri, by Manley O. Hudson. Notes on Recent Missouri Cases, by the Student Editors. November 1913. 47 pp. (Law Vol. 1, No. 1)
2. Estates by the Marital Right and by the Curtesy in Missouri, by Charles K. Burdick. Notes on Recent Missouri Cases, by the Student Editors. February 1914. 43 pp. (Vol. 15, No. 5)
3. The Rule Against Perpetuities in Missouri, by Manley O. Hudson. Notes on Recent Missouri Cases, by the Student Editors. April 1914. 54 pp. (Vol. 15, No. 11)
4. The Real Party in Interest Statute in Missouri, by George L. Clark. Limitations of Personal Property, by Manley O. Hudson. Notes on Recent Missouri Cases, by the Student Editors. June 1914. 60 pp. (Vol. 15, No. 17)
5. Conditions Subsequent in Conveyances in Missouri, by Manley O. Hudson. Notes on Recent Missouri Cases, by the Student Editors. December 1914. 50 pp. (Vol. 15, No. 34)
6. The Writ of Certiorari in Missouri, by J. P. McBaine. Notes on Recent Missouri Cases, by the Student Editors. February 1915. 45 pp. (Vol. 16, No. 5)
7. Tort Liability for Negligence in Missouri: I. The Duty to Use Care, by George L. Clark. Notes on Recent Missouri Cases, by the Student Editors. April 1915. 67 pp. (Vol. 16, No. 10)
8. Land Tenure and Conveyances in Missouri, by Manley O. Hudson. Notes on Recent Missouri Cases. Index to Law Series, 1-8. June 1915. 69 pp. (Vol. 16, No. 16)
9. Preliminary Stock Subscription Agreements in Missouri, by Manley O. Hudson. Notes on Recent Missouri Cases. December 1915. 64 pp. (Vol. 16, No. 34)
10. Some Aspects of the Status of Children in Missouri, by Eldon R. James. Notes on Recent Missouri Cases. February 1916. 64 pp. (Vol. 17, No. 2)
11. Executory Limitations of Property in Missouri, by Manley O. Hudson. Notes on Recent Missouri Cases. April 1916. 79 pp. (Vol. 17, No. 8)
12. Tort Liability for Negligence in Missouri: II. Legal or Proximate Cause; III. Contributory Misconduct of the Plaintiff; by George L. Clark. Notes on Recent Missouri Cases. June 1916. 64 pp. (Vol. 17, No. 13)

13. The Proposed Regulation of Missouri Procedure by Rules of Court, by Manley O. Hudson. Certiorari From the Missouri Supreme Court to the Courts of Appeals, by J. P. McBaine. Notes on Recent Missouri Cases. December 1916. 79 pp. (Vol. 17, No. 31)
14. The Transfer and Partition of Remainders in Missouri, by Manley O. Hudson. Notes on Recent Missouri Cases. February 1917. 58 pp. (Vol. 18, No. 2)
15. Some Problems in Hearsay and Relevancy in Missouri, by E. W. Hinton. Notes on Recent Missouri Cases. June 1917. 40 pp. (Vol. 18, No. 14)
16. Equitable Servitudes in Missouri, by George L. Clark. Notes on Recent Missouri Cases. Index to Law Series, 1-16. December 1917. 60 pp. (Vol. 18, No. 34)

Note.—Numbers 17-40 and supplement are a consolidation of the Bar Bulletin (issued by the Missouri Bar Association) and the University of Missouri Bulletin, Law Series.

17. Bar Bulletin. Equitable Relief Against Nuisances and Similar Wrongs in Missouri, by George L. Clark. Notes on Recent Missouri Cases. November 1919. 71 pp. (Vol. 20, No. 32\*)
18. Bar Bulletin. Payment of Debt to Foreign Representatives or Heirs, by Robert B. Fizzell. Notes on Recent Missouri Cases. March 1920. 52 pp. (Vol. 21, No. 7)
19. Bar Bulletin. Local and Special Legislation in Missouri Under the Constitution of 1875, by Roscoe E. Harper. Notes on Recent Missouri Cases. June 1920. 76 pp. (Vol. 21, No. 16)
20. Bar Bulletin. Local and Special Legislation in Missouri Under the Constitution of 1875 (concluded), by Roscoe E. Harper. Notes on Recent Missouri Cases. November 1920. 84 pp. (Vol. 21, No. 31)
21. Bar Bulletin. Larceny of Referendum Petitions, by Kenneth C. Sears. Notes on Recent Missouri Cases. March 1921. 56 pp. Vol. 22, No. 9)
22. Bar Bulletin. Larceny of Referendum Petitions (concluded), by Kenneth C. Sears. Notes on Recent Missouri Cases. July 1921. 71 pp. (Vol. 22, No. 21)
23. Bar Bulletin. Transfer of Property by a Pledge, by James Lewis Parks. Notes on Recent Missouri Cases. January 1922. 63 pp. (Vol. 23, No. 1)
24. Bar Bulletin. Certiorari as Used by the Supreme Court in the Interest of Harmony of Opinion and Uniformity of the Law, by Waller W. Graves. Notes on Recent Missouri Cases. Index to Law Series, 1-24. April 1922. 75 pp. (Vol. 23, No. 11)
25. Bar Bulletin. Ultra Vires Transactions, by James Lewis Parks. Notes on Recent Missouri Cases. October 1922. 78 pp. (Vol. 23, No. 28)
26. Bar Bulletin. Ultra Vires Transactions (concluded), by James Lewis Parks. Notes on Recent Missouri Cases. April 1923. 54 pp. (Vol. 24, No. 8)
27. Bar Bulletin. Declarations of Trusts and the Statute of Uses, by James Lewis Parks. The Law School Curriculum as Seen by the Bench and the Bar, by Cuthbert W. Pound. A Discussion of Judge Pound's

- Paper, by Charles M. Hough. A Discussion of Judge Pound's Paper, by J. P. McBaine. Notes on Recent Missouri Cases. June 1923. 76 pp. (Vol. 24, No. 16)
28. Bar Bulletin. Statutory Covenants for Title in Missouri, by J. W. Simonton. Notes on Recent Missouri Cases. November 1923. 54 pp. (Vol. 24, No. 32)
29. Bar Bulletin. Legal Education and American Law Institute, by Herbert S. Hadley. The Domicile of a Married Woman, by James Lewis Parks. Program of Missouri Bar Association, by Guy A. Thompson. Notes on Recent Missouri Cases. January 1924. 54 pp. (Vol. 25, No. 3)
30. Bar Bulletin. The Extraordinary Writ of Prohibition in Missouri, by J. P. McBaine. Judicial Control of the Missouri Public Service Commission, by James W. Simonton. Notes on Recent Missouri Cases. June 1924. 63 pp. (Vol. 25, No. 18)
31. Bar Bulletin. The Extraordinary Writ of Prohibition in Missouri (continued), by J. P. McBaine. Judicial Control of the Missouri Public Service Commission (continued), by James W. Simonton. Notes on Recent Missouri Cases. December 1924. [83] pp. (Vol. 25, No. 36)
32. Bar Bulletin. The Extraordinary Writ of Prohibition in Missouri (concluded), by J. P. McBaine. Judicial Control of the Missouri Public Service Commission (concluded), by James W. Simonton. Notes on Recent Missouri Cases. Index to Law Series, 1-32. April 1925. 90 pp. (Vol. 26, No. 10)
33. Bar Bulletin. Contracts for the Benefit of Third Persons, by James Lewis Parks. Notes on Recent Missouri Cases. November 1925. [51] pp. (Vol. 26, No. 33)
34. Bar Bulletin. The Law of Zoning in Missouri, by Frederick V. Wells. Notes on Recent Missouri Cases. May 1926. [69] pp. (Vol. 27, No. 17)
35. Bar Bulletin. Jurisdiction to Divorce, by James Lewis Parks. Notes on Recent Missouri Cases. March 1927. 47 pp. (Vol. 28, No. 9)
36. Bar Bulletin. Operative Facts in Surrenders, by Merrill Isaac Schnebly. Notes on Recent Missouri Cases. June 1927. [49] pp. (Vol. 28, No. 22)
37. Dedication of Lee H. Tate Hall, Memorial Law Building, University of Missouri. December 1927. 39 pp. (Vol. 28, No. 47\*)
38. Bar Bulletin. Operative Facts in Surrenders (concluded), by Merrill Isaac Schnebly. Notes on Missouri Cases. April 1928. [47] pp. (Vol. 29, No. 13)
39. Bar Bulletin. The Meaning of "Hootch, Moonshine, Corn Whiskey" in the Missouri Prohibition Law, by Ben Ely, Jr. Restraints on Alienation in Missouri, by Earl F. Nelson. Notes on Missouri Cases. November 1928. 56 pp. (Vol. 29, No. 43)
40. Bar Bulletin. Attempted Acceptance of a Deceased Offeror's Offer, by James Lewis Parks. Admissibility of Evidence Obtained by Wire Tapping, by Robert L. Howard. Motor Carrier Regulation in Missouri,

- by John J. George. Notes on Missouri Cases. December 1928. 61 pp. (Vol. 29, No. 48)
40. Bar Bulletin. Cumulative Index for Law Series, 1 to 40. Supplement. December 1928. 31 pp. (Vol. 29, No. 48)
  41. Some Problems in Jurisdiction to Divorce, by James Lewis Parks. Notes on Recent Missouri Cases. April 1930. 55 pp. (Vol. 31, No. 11)
  42. Partition Where Life Estates and Remainders Are Involved, by Earl F. Nelson. Notes on Recent Missouri Cases. February 1931. 41 pp. (Vol. 32, No. 4)
  43. Some Problems Involved in Conditional Deliveries of Deeds, by Glenn A. McCleary. Notes on Recent Cases. May 1931. 60 pp. (Vol. 32, No. 14)
  44. Recent Developments and Tendencies in the Taxation of Intangibles, by Robert L. Howard. Notes on Recent Cases. September 1931. 65 pp. (Vol. 32, No. 25)
  45. Can an Estate Tail Be Docked During the Life of the First Taker? by Ben Ely, Jr. Notes on Recent Missouri Cases. September 1931. 48 pp. (Vol. 32, No. 26)
  46. The American Law Institute's Restatement of the Law of Conflict of Laws With Annotations to the Missouri Authorities (Sections 79-92), by J. Coy Bour. November 1933. 40 pp. (Vol. 34, No. 21)
  47. The American Law Institute's Restatement of the Law of Conflict of Laws With Annotations to the Missouri Authorities (Sections 93-115), by J. Coy Bour. December 1933. [37] pp. (Vol. 34, No. 22)
  48. Priorities Between Mortgages and Mechanics' Liens, by Robert S. Eastin. The Doctrine of Lis Pendens in Legal Actions Affecting Land, by Gardner Smith. Notes on Recent Missouri Cases. January 1935. 48 pp. (Vol. 36, No. 1)
  49. Gas and Electricity in Interstate Commerce, by Robert L. Howard. Comments. Notes on Recent Cases. August 1935. 71 pp. (Vol. 36, No. 15)
  50. Gas and Electricity in Interstate Commerce: Part II. Regulation of Rates and Service; Part III. State Taxation; by Robert L. Howard. Notes on Recent Cases. Cumulative Index for Law Series, 1 to 50. September 1935. 101 pp. (Vol. 36, No. 18)
- Note.—The Law Series was discontinued in 1935 with number 50. It was replaced by:

### Missouri Law Review

Published quarterly

#### VOLUME 1

1. New Frazier-Lemke Act, by John Hanna. Statutory Unfair Competition, by Irvin H. Fathchild. The Liability of a Possessor of Land in Missouri to Persons Injured While on the Land, by Glenn Avann McCleary. News of the Law School. Comments. Recent Cases. Book Reviews. January 1936. 118 pp.
2. Interests in Chattels Real and Personal, by Percy Bordwell. Depreciation as an Element in Public Utility Valuation, by W. Lewis Roberts. Rights of a Corporation in Missouri Against Promoters for

- Secret Profits, by Robert L. Spurrier. News of the Law School. Comments. Recent Cases. Book Reviews. April 1936. [104] pp.
3. The Scope of Restitution and Unjust Enrichment, by Edwin W. Patterson. The Missouri Rule as to Regulation of the Bar, by Frank E. Atwood. The Effect Upon State Powers of Expanded Federal Control in the Public Utility Field, by Holmes Baldridge. Courts and the Rule-Making Powers, by Carl C. Wheaton. News of the Law School. Comments. Recent Cases. Book Reviews. June 1936. [75] pp.
  4. Static and Dynamic Concepts of the Law of Unfair Competition, by Irvin H. Fathchild. Recognition of Foreign Governments and Its Effect on Private Rights, by David Ernest Hudson. History of Criminal Appeal in England, by Lester B. Orfield. News of the Law School. Recent Cases. Book Reviews. November 1936. [80] pp.

## VOLUME 2

1. Five Years of the Norris-LaGuardia Act, by Herbert N. Monkemeyer. The Restatement of the Law of Torts and the Missouri Annotations, by Glenn McCleary. Lord Mansfield and the English Dissenters, by Charles F. Mullett. News of the Law School. Comments. Recent Cases. Book Reviews. January 1937. 130 pp.
2. Joseph Henry Beale: Pioneer, by Arthur Leon Harding. In the Public Interest, by Boyle G. Clark. Constitutional Jurisdiction Over Tangible Chattels, by Robert A. Leflar. News of the Law School. Comments. Recent Cases. Book Reviews. April 1937. [150] pp.
3. Origin and Development of Missouri Appellate Procedure, by Laurance M. Hyde. The Adoption of Children in Missouri, by Rush H. Limbaugh. Control of Unauthorized Practice Before Administrative Tribunals in Missouri, by Robert L. Howard. News of the Law School. Comments. Recent Cases. Book Reviews. June 1937. [111] pp.
4. The Work of the Missouri Supreme Court for the Year 1936. News of the Law School. Recent Cases. Book Reviews. November 1937. [145] pp.

## VOLUME 3

1. Excess Condemnation, by J. B. Steiner. States' Rights and the Wagner Act Decisions, by Mary Louise Ramsey. News of the Law School. Comments. Recent Cases. Book Reviews. January 1938. 92 pp.
2. Personal Names as Trade Symbols, by James A. Pike. The Dissenting Opinion—Its Use and Abuse, by Evan A. Evans. Recent Missouri Decisions and the Restatement of the Conflict of Laws, by J. Coy Bour. Comments. Recent Cases. Book Reviews. April 1938. [126] pp.
3. Williston's Fundamental Conceptions, by Arthur L. Harding. Individual Rights Arising From Collective Labor Contracts, by Milo Fowler Hamilton. Liability in Tort of Municipal Corporations in Missouri, by Walter Freedman. Comments. Recent Cases. Book Reviews. June 1938. [126] pp.
4. The Work of the Missouri Supreme Court for the Year 1937. Comments. Recent Cases. Book Reviews. November 1938. [140] pp.

## VOLUME 4

1. Legislative Practice Regarding Tort Claims Against the State, by Charles B. Nutting. Problems in the Enforcement of Federal Judgments, by Orrin B. Evans. Comments. Recent Cases. Book Reviews. January 1939. 103 pp.
2. Law and the New Liberties, by James M. Landis. Methods of Objecting to Pleadings and of Obtaining Summary Judgment, by Ernest A. Fintel. On Englishing the Law of England, by Charles F. Mullett. News of the Law School. Comments. Recent Cases. Book Reviews. April 1939. [134] pp.
3. Legal Protection of Ideas, by James C. Logan. More Faith and Credit for Divorce Decrees, by Robert A. Leflar. Comments. Recent Cases. Book Reviews. June 1939. [105] pp.
4. The Work of the Missouri Supreme Court for the Year 1938. Recent Cases. Book Reviews. November 1939. [141] pp.

## VOLUME 5

1. One Year of Our Federal Rules, by Elmo Hunter. The Bases of the Humanitarian Doctrine Re-examined, by Glenn A. McCleary. News of the Law School. Comments. Recent Cases. Book Reviews. January 1940. 129 pp.
2. Voluntary and Involuntary Nonsuits in Missouri, by Rudolph Heitz. Political Crimes, by Elmer M. Million. Development of the Doctrine of *Erie Railroad v. Tompkins*, by C. Sherman Dye. News of the Law School. Comments. Recent Cases. Book Reviews. April 1940. [137] pp.
3. History of the University of Missouri Law School, by Percy A. Hogan. Political Crimes, II, by Elmer M. Million. Comments. Recent Cases. Book Reviews. June 1940. [108] pp.
4. The Work of the Missouri Supreme Court for the Year 1939. Recent Cases. Book Reviews. November 1940. [146] pp.

## VOLUME 6

1. Missouri Appellate Practice and Procedure, by Charles L. Carr. Wigmore and Evidence: A Review, by Robert A. Leflar. Comments. Recent Cases. Book Reviews. January 1941. 140 pp.
2. Judicial Tests of Mental Incompetency, by Milton D. Green. Eminent Domain Damages, by J. B. Steiner. News of the Law School. Comments. Recent Cases. Book Reviews. April 1941. [103] pp.
3. Words Which Will Create an Easement, by Alfred F. Conard. The Destructibility of Contingent Remainders in Missouri, by Willard L. Eckhardt. The Lien of a Federal Judgment, by Orrin B. Evans. Comments. Recent Cases. Book Reviews. June 1941. [136] pp.
4. The Work of the Missouri Supreme Court for the Year 1940. Comments. Recent Cases. Book Reviews. November 1941. [152] pp.

## VOLUME 7

1. The Proposed Code of Civil Procedure for Missouri—Parties and Pleadings, by Harry W. Henry, Jr. Parties and Pleadings in the Missouri Proposed Code of Civil Procedure, by Thomas E. Atkinson. News of

- the Law School. Comments. Recent Cases. Book Reviews. January 1942. 103 pp.
2. A Symposium on the Proposed Code of Civil Procedure for Missouri, by J. P. McBaine, Rubey Hulen, Carl C. Wheaton, John T. Martin, Paul R. Stinson, and Tyrrell Williams. Comments. Recent Cases. Book Reviews. April 1942. [97] pp.
  3. Interpleader in Missouri, by Eugene Hauck Buder. Contempt of Court and the Press in Missouri, by Milton I. Goldstein. A Resume of Decisions of the United States Supreme Court on Federal Criminal Procedure, by Lester B. Orfield. Comments. Recent Cases. Book Reviews. June 1942. [124] pp.
  4. The Work of the Missouri Supreme Court for the Year 1941. News of the Law School. Recent Cases. November 1942. [151] pp.

## VOLUME 8

1. Improving Judicial Administration in the State Courts, by Will Shafroth. Freedom of Speech in Labor Controversies, by Fred L. Howard. Comments. Recent Cases. Book Reviews. January 1943. 83 pp.
2. Security Devices as Preferences Under the Bankruptcy Act, by Everett H. Snedeker. Brief History of English Testamentary Jurisdiction, by Thomas E. Atkinson. News of the Law School. Comments. Recent Cases. Book Reviews. April 1943. [68] pp.
3. State Jurisdiction to Tax Intangibles: A Twelve Year Cycle, by Robert L. Howard. Jurisdiction to Divorce A: Study in Stare Decisis, by Orrin B. Evans. Comments. Recent Cases. Book Reviews. June 1943. [68] pp.
4. The Work of the Missouri Supreme Court for the Year 1942. Comments. Recent Cases. November 1943. [117] pp.

## VOLUME 9

1. The Modernized Civil Code of Missouri, by Charles L. Carr. Missouri's New Civil Procedure: A Critique of the Process of Procedural Improvement, by Thomas E. Atkinson. Recent Cases. January 1944. 113 pp.
2. Allocation, Part I, by Paul W. Barrett. The Value of Law to Historians, by Charles F. Mullett. Comments. Recent Cases. Book Reviews. April 1944. [73] pp.
3. Fifty Years of the United States Circuit Court of Appeals, by Evan A. Evans. Allocation (conclusion), by Paul W. Barrett. Comments. Recent Cases. Book Reviews. June 1944. [108] pp.
4. The Work of the Missouri Supreme Court for the Year 1943. Recent Cases. November 1944. [88] pp.

**Library Series**

Published irregularly

- [1.] Annual Report of the Librarian, 1907; List of Scientific Serials in the Libraries of the University of Missouri; by [Henry O. Severance]. [1908.] 60 pp. (Lib. Vol. 1, No. 1)
- [2.] A List of Periodicals Currently Received by the Libraries. n.d. 20 pp. (Lib. Vol. 1, No. 2)

- [3.] Handbook of the Libraries. 1910. 42 pp. (Lib. Vol. 1, No. 3)
- [4.] Books for Farmers and Farmers' Wives, by Henry Ormal Severance. April 1912. [24] pp. (Lib. Vol. 1, No. 4)
- [5.] Partial Bibliography and Index of the Publications of the College of Agriculture and Agricultural Experiment Station, by [Henry Ormal Severance]. July 1912. 19 pp. (Lib. Vol. 2, No. 1)
6. Check List of the Official Serial Publications of the University, by [Henry Ormal Severance]. January 1914. 44 pp. (Vol. 15, No. 2)
7. A Library Primer for Missouri High Schools, by Henry Ormal Severance. October 1915. 30 pp. (Vol. 16, No. 30)
8. Opening Exercises of the New Library Building, January 6, 1916, edited by Henry Ormal Severance. May 1916. 22 pp. (Vol. 17, No. 12)
9. Check List of the Official Serial Publications of the University Covering Years 1914, 1915, 1916. Supplement to Bulletin 6. February 1917. [12] pp. (Vol. 18, No. 4)
10. Check List of the Official Serial Publications of the University, by [Henry Ormal Severance]. Second Edition. April 1921. 64 pp. (Vol. 22, No. 10\*)
11. List of Periodicals Currently Received by the University Library, by [Henry O. Severance]. May 1921. 35 pp. (Vol. 22, No. 16)
12. Check List of the Official Serial Publications of the University, by [Henry Ormal Severance]. Third Edition. April 1926. 63 pp. (Vol. 27, No. 16)
13. Facilities and Resources of the University Library for Graduate Work, by Henry O. Severance. December 1926. [16] pp. (Vol. 27, No. 47)
14. List of Periodicals Currently Received by the University Library 1926, by Henry O. Severance. Check List of Student Serial Publications, by John H. Dougherty. December 1926. 54 pp. (Vol. 27, No. 48)
15. History of the Library, University of Missouri, by Henry Ormal Severance. Foreword by Stratton Duluth Brooks. June 1928. 98 pp. (Vol. 29, No. 22)
16. Missouri in the Library War Service, by Henry Ormal Severance. Introduction by Carl Hastings Milam. July 1931. 44 pp. (Vol. 32, No. 20)
17. William Benjamin Smith, Ph.D., LL.D.: A Friend of the University of Missouri Library, by Henry Ormal Severance. January 1936. 23 pp. (Vol. 37, No. 3)
18. Missouri Libraries, 1915-1935, by Henry Ormal Severance, Ada McDaniel Elliott, and Ann Todd. April 1936. 64 pp. (Vol. 37, No. 12)
19. A Survey of the Resources of the University of Missouri Library for Research Work, by Henry O. Severance. August 1937. 30 pp. (Vol. 38, No. 16)

### Literature Series

Publication ceased

1. The Congress of Letters (Phi Beta Kappa Address), by Fred Newton Scott. June 1917. 16 pp. (Vol. 18, No. 15)
2. An Odious Comparison (Phi Beta Kappa Address), by George Norlin. June 1917. 15 pp. (Vol. 18, No. 17)



### Medical Series

Published irregularly

This series, issued from time to time, is devoted primarily to topics within the general field of hygiene and preventive medicine. The bulletins will be illustrated, popular in character, and as thorough and practical as possible.

- [1.] Bacteria and Disease, by O. W. H. Mitchell. January 1913. 39 pp. (Med. Vol. 1, No. 1)
- [2.] Prevention of Typhoid Fever, by W. J. Calvert. April 1913. [40] pp. (Med. Vol. 1, No. 2)
- [3.] Prevention of Contagious Diseases in School Children, by W. J. Calvert. July 1913. [32] pp. (Med. Vol. 1, No. 3)
- [4.] On Resuscitation, by D. H. Dolley. October 1913. [30] pp. (Med. Vol. 1, No. 4)
5. The Relation of Sight and Hearing to Early School Life, by Guy L. Noyes. January 1914. [35] pp. (Vol. 15, No. 3)
6. The Prevention of Tuberculosis, by O. W. H. Mitchell. March 1914. [37] pp. (Vol. 15, No. 9)
7. Water: The Prevention of Its Pollution, by O. W. H. Mitchell. July 1914. [20] pp. (Vol. 15, No. 21)
8. Preventive Medicine: Its Accomplishments and Its Aims, by Mazyck P. Ravenel. March 1915. 24 pp. (Vol. 16, No. 9)
9. The Early Diagnosis and Treatment of Cancer, by F. A. Martin. July 1915. 13 pp. (Vol. 16, No. 21)
10. The Prevention of Malaria, by Elbert L. Spence. October 1915. 20 pp. (Vol. 16, No. 28)
11. Headache—a Symptom: Its Causes, Prevention, and Cure, by Walden E. Muns. July 1916. [34] pp. (Vol. 17, No. 18)
12. Report of the State Service for Crippled Children. October 1928. [16] pp. (Vol. 29, No. 40)
13. Alumni of the School of Medicine: A Directory of the Graduates and Former Students of the School of Medicine, University of Missouri, compiled by Charles W. Greene. November 1928. 94 pp. (Vol. 29, No. 41)
14. Alumni of the School of Medicine: A Directory of the Graduates and Former Students of the School of Medicine, University of Missouri, compiled by Charles W. Greene. Second Edition. August 1938. 136 pp. (Vol. 39, No. 15)

### Rural Education Series

Publication ceased

- [1.] Ten Lessons on the Study of Indian Corn, by M. F. Miller and R. H. Emberson. August 1909. 20 pp.
- [2.] Rural Education: The Soil, by R. H. Emberson. October 1909. 8 pp. (General Series Vol. 10, No. 10)
- [3.] Rural Education: The Horse, by R. H. Emberson. January 1910. 8 pp. (General Series Vol. 10, No. 11)
- [4.] A Study of Cattle, by R. H. Emberson. February 1911. 16 pp. (Rural Education Vol. 12,\* No. 4)

Note.—Continued in the Extension Series of the Bulletin.

**Science Series**

Publication ceased

**VOLUME 1**

Non-Technical Lectures by Members of the Faculty of the University of Missouri. Series I. Mathematical and Physical Sciences.

1. The Unity of Science, by Arthur O. Lovejoy. January 1912. 34 pp.
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## THE COLLEGE OF AGRICULTURE PUBLICATIONS

The College of Agriculture issues a variety of publications. These are grouped into two general classes: Experiment Station publications and Agricultural Extension Service publications.

### AGRICULTURAL EXPERIMENT STATION PUBLICATIONS

The publications issued from the Experiment Station are of three kinds: bulletins, circulars, and research bulletins, all of which carry series numbers.

**Bulletins:** The bulletins report the results of research but in a sufficiently popular form for general reading. These editions are rather large.

**Circulars:** Circulars contain no tabular material. These are written in very popular style and carry recommendations based on research information. They are issued in large editions.

**Research Bulletins:** The results of fundamental investigations in a wide variety of fields are published in rather technical form in the research series. The editions are small since they are distributed mainly to libraries and technical workers.

### AGRICULTURAL EXTENSION SERVICE PUBLICATIONS

The publications of the Agricultural Extension Service are popular in nature. They consist of extension circulars and extension leaflets in numbered series, along with manuals and various display publications in the form of posters, folders, fliers, and informational sheets.

**Extension Circulars:** These are popularly written and carry to the farm people of the state the recommendations of the College of Agriculture. The editions are large.

**Extension Leaflets:** These are very brief popular publications of one or two pages, issued in large editions.

**Extension Manuals:** These manuals are compilations of directions for leaders engaged in various extension projects, such as 4-H clubs, home economics clubs, and similar activities. The editions are small.

The unnumbered informational posters, postcards, and so on are sometimes distributed in exceedingly large editions, usually through the county agents' offices.

### Missouri State Agricultural College Farm Bulletins

Twenty bulletins were issued under the title: Missouri State Agricultural College Farm Bulletins. Numbers 1-8 were published in the catalogue of the University of Missouri, 1883-1884. Numbers 9-14 were published in the catalogue for 1884-1885, and numbers 15-19 in the catalogue for 1885-1886. The following bulletins were issued in separate pamphlet form: Numbers 1-8, 10-12, 14, 16, 18-21, 23-25, 29-34. Number 21 was issued only as a pamphlet. Bulletins 21-35 were issued under the title: Missouri State Agricultural College Bulletin. Numbers 19-20 and 22-27 were published in the nineteenth annual report of the Missouri State Board of Agriculture, 1886-1887; numbers 28-30 in the twentieth annual report, 1887-1888; and numbers 31-35 in the twenty-first annual report, 1888-1889. Numbers 9-12, 14, 21, and 28-33 were also issued separately. Bulletin 35 is also bulletin number 2 of the Agricultural Experiment Station. Numbers 15, 16, and 24 were also published in the report of the Dean of the College of Agriculture, 1887.

1. [Feeding Pigs], by [J. W. Sanborn]. January 1883. [3] pp.
2. Feeding Steers, by [J. W. Sanborn]. April 1883. [5] pp.
3. Report of Test of Varieties of Wheat and Corn, by [J. W. Sanborn]. n.d. [3] pp.
4. Mulching, by [J. W. Sanborn]. October 1883. [4] pp.
5. Relation of Tillage to Soil Moisture, by [J. W. Sanborn]. November 1883. [3] pp.
6. Relation of Dew to Soil Moisture, by [J. W. Sanborn]. December 1883. [5] pp.
7. Feeding Wheat and Corn, by [J. W. Sanborn]. February 1884. [4] pp.
8. Meal Feeding Stock at Pasture, by [J. W. Sanborn]. March 1884. [4] pp.
9. Grass-Fed Pigs, by [J. W. Sanborn]. May 1884. [3] pp.
10. Pig Feeding Experiments, by [J. W. Sanborn]. July 1884. [4] pp.
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14. Feeding for Lean Meat, by [J. W. Sanborn]. February 1885. [6] pp.
15. Contagious Pleuro-Pneumonia, by Paul Paquin. [April 1885.] [5] pp.
16. [Glanders: Second Report of the State Veterinarian], by [Paul Paquin]. June 1885. [8] pp.
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23. Relation of Dew to Soil Moisture, by [J. W. Sanborn]. August 1886. [14] pp.
24. [Report of the State Veterinary Inspector], by [Paul Paquin]. October 1886. [22] pp.
25. [Data Regarding Several Economic Problems in Ordinary Farm Practice], by [J. W. Sanborn]. December 1886. [7] pp.
26. [Report of Trials of Varieties of Vegetables and Fruits], by [L. R. Taft]. February 1887. [7] pp.
27. Feeding for Flesh, by [J. W. Sanborn]. February 1887. [12] pp.
28. Maintenance Rations for Pigs, by J. W. Sanborn. June 1887. [27] pp.
29. Rotation of Crops, by J. W. Sanborn. August 1887. [7] pp.
30. Fertilization, by J. W. Sanborn. October 1887. [11] pp.
31. Texas Fever and Other Diseases, by [Paul Paquin]. 1887. 13 pp.
32. Plows and Plowing, by [J. W. Sanborn]. January 1888. [14] pp.
33. Glanders, Mad Itch of Cattle, Etc., by Paul Paquin. [April 1888.] [8] pp.
34. Experimental Farming, by [J. W. Sanborn]. June 1888. 10 pp.
35. Grasses for Pastures and for Meadows, by [J. W. Sanborn]. 1888. 16 pp.

### Agricultural Experiment Station Bulletins

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13. Reports on Spraying for the Codling Moth, Apple Scab, and Black Rot of the Grape; Reports on Strawberries, Raspberries, Blackberries, Tomatoes, Peas, and Potatoes; List of New Fruits Received for Testing; by John W. Clark. January 1891. 19 pp.
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383. Using Limestone on Missouri Soils, by O. T. Coleman and A. W. Klemme. April 1938. 4 pp.
384. Poultry House Remodeling, by C. E. Rohde and K. B. Huff. May 1938. 16 pp.
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387. Field Bindweed and Methods of Control, by J. Ross Fleetwood. July 1938. 12 pp.
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389. Homemade Rugs, by Madonna Fitzgerald. September 1938. 15 pp.
390. Making the Farm Grounds Attractive, by Julia M. Rocheford and Madonna Fitzgerald. September 1938. [20] pp.
391. New Systems on Northwest Missouri Upland Farms, by D. B. Ibach and H. B. Steele. November 1938. 31 pp.
392. Improvement of Farm Ponds and Watersheds for Erosion Control and Wildlife Production, by Werner O. Nagel and Marion W. Clark. November 1938. 11 pp. (Revision of Circular 361)
393. Improving Food and Cover for Wildlife on Missouri Farms: I. Trees and Shrubs, by R. H. Westveld and Rudolf Bennitt. November 1938. 8 pp. (Revision of Circular 348)
394. Canning Meats, Fish, and Chicken, by Flora L. Carl. November 1938. 7 pp.
395. Feeding Baby Chicks, by H. L. Kempster. January 1939. [4] pp.
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397. Pruning Apple Trees, by T. J. Talbert. January 1939. 16 pp.
398. Building With Rock, by K. B. Huff. January 1939. 15 pp.
399. Conserving Soil by Contour Farming, by Marion W. Clark and W. R. Tascher. February 1939. 19 pp. (Revision of Circular 365)
400. The Agricultural Extension Service, Missouri College of Agriculture: Annual Report for 1938, by J. W. Burch. February 1939. [43] pp.
401. Water and Sewage Disposal for Farm Homes, by J. C. Wooley, M. M. Jones, and K. B. Huff. March 1939. 14 pp.

402. Spraying Apples, Peaches, and Cherries, by T. J. Talbert, Leonard Haseman, and H. G. Swartwout. March 1939. 12 pp.
403. Care and Hitches for Work Horses, by J. W. Burch and T. A. Ewing. May 1939. 12 pp. (Revision of Circular 287)
404. The Missouri Summer Range Shelter, by D. D. Moyer and K. B. Huff. May 1939. [4] pp.
405. Rations for Dairy Cows, by M. J. Regan and Warren Gifford. May 1939. 11 pp.
406. Canning Fruits and Vegetables, by Flora L. Carl. June 1939. 7 pp.
407. Loading Livestock, by K. B. Huff. June 1939. [4] pp.
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410. Some Causes of Soft Pork, by L. A. Weaver. September 1939. 4 pp.
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412. Color in Dress, by Mary E. Robinson. January 1940. 11 pp.
413. Farm Water Systems, by J. C. Wooley, M. M. Jones, and K. B. Huff. February 1940. 26 pp.
414. Soybeans and Winter Barley in One-Year Rotation, by Ross Fleetwood. February 1940. [2] pp.
415. Winter Care of Ewes, by Albert J. Dyer. March 1940. 10 pp.
416. The Missouri Plan of Growing Thrifty Pigs, by J. W. Burch. March 1940. 12 pp.
417. The Missouri Plan of Sheep Improvement, by T. A. Ewing and J. W. Burch. March 1940. 16 pp.
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420. Twenty-five Years of Extension Work in Missouri, With the Annual Report for 1939: University of Missouri, College of Agriculture, Agricultural Extension Service, by J. W. Burch. June 1940. 157 pp.
421. Canning Fruits and Vegetables, by Flora L. Carl. July 1940. 8 pp.
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427. Building Soil, Security, and Self-reliance: Annual Report, 1940, Agricultural Extension Service, University of Missouri, College of Agriculture, by J. W. Burch. March 1941. n.p.
428. Quality Egg Production and Marketing, by C. E. Rohde. May 1941. 12 pp.



429. Low Cost Poultry Housing, by C. E. Rohde and K. B. Huff. July 1941. 12 pp.
430. Making the Farm Grounds Attractive, by Julia M. Rocheford and Madonna Fitzgerald. July 1941. 20 pp.
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433. Water Management for the Farm: Conserving Soil and Water for Efficient Production of Crops and Livestock, by M. W. Clark and J. C. Wooley. August 1941. 11 pp.
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437. Spring Crops for Land on Which Fall Seedings Failed, by J. Ross Fleetwood. December 1941. [4] pp.
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442. Beef Production (for 4-H Clubs and General Use), by [T. A. Ewing, E. T. Itschner, and Robert S. Clough]. January 1942. [32] pp.
443. Eggs for Family Use, by Letha O. Knight and Flora L. Carl. February 1942. [12] pp.
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447. Growing Annuals to Beautify the Home Grounds (for 4-H Projects in Home Grounds, I, and General Use), by [Julia M. Rocheford and Madonna Fitzgerald]. February 1942. 12 pp.
448. Simple Cotton Garments (for 4-H Projects in Clothing, II, and for General Use), by [Freida Mae Bennett, Mary E. Robinson, Helen Church, and May Sontag]. February 1942. 19 pp.
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450. Soybeans for Grain, by J. R. Paulling. February 1942. [4] pp.
451. Safeguards in Financing the Purchase of a Farm, by Conrad H. Hammar and Diller C. Wood. February 1942. 27 pp.

452. Perennial Plants for Beautifying the Home Grounds (for 4-H Projects in Home Grounds, II, and General Use), by [Julia M. Rocheford, Madonna Fitzgerald, and May Sontag]. March 1942. 12 pp.
453. The Colony Brooder House, by H. L. Kempster. March 1942. 4 pp.
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456. Milk and Milk Products for the Family, by Flora L. Carl and Letha O. Knight. March 1942. 16 pp.
457. Summer Clothes for Girls (for 4-H Projects in Clothing, III, and General Use), by [Freida Mae Bennett, Mary Robinson, Helen L. Church, and May Sontag]. March 1942. 20 pp.
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470. Dairy Farm Building Plans, by J. C. Wooley and A. C. Ragsdale. July 1942. 16 pp.
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472. Plans for Buildings and Equipment for Beef Cattle, Sheep, and Work Stock, by J. C. Wooley and R. L. Ricketts. July 1942. 39 pp.
473. Plans for Poultry Buildings, by J. C. Wooley and R. L. Ricketts. July 1942. [4] pp.
474. Plans for Storage Buildings, by J. C. Wooley and R. L. Ricketts. July 1942. [4] pp.
475. Plans for Farm Houses, by J. C. Wooley and R. L. Ricketts. July 1942. [4] pp.
476. Clothes for Occasion (for 4-H Projects in Clothing, V, and for General Use), by [Freida Mae Bennett, Mary Robinson, Helen L. Church, and May Sontag]. July 1942. 23 pp.

477. Drying Fruits and Vegetables, by Flora L. Carl and Letha O. Knight. July 1942. 12 pp.
478. Salting and Brining Vegetables, by Flora L. Carl and Letha O. Knight. July 1942. [4] pp.
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480. Storing the Family Food Supply, by J. W. C. Anderson and K. B. Huff. October 1942. [24] pp.
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482. Farm Ponds in Missouri, by Marion W. Clark. January 1943. [20] pp. (Revision of Circular 351)
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484. Homemade Stock Tank Heaters, by Ralph Ricketts, Marion Clark, and M. J. Regan. January 1943. [4] pp.
485. Victory Gardens for Town and City Families, by J. W. C. Anderson. February 1943. [8] pp.
486. A Homemade Electric Brooder, by M. M. Jones and C. E. Rohde. February 1943. [4] pp.
487. Winter Clothes for Girls (for 4-H Projects in Clothing, IV, and for General Use). February 1943. 31 pp.
488. With Missouri Farmers in Wartime Production: Annual Report, 1942, University of Missouri, College of Agriculture, Agricultural Extension Service, by J. W. Burch. March 1943. n.p.
489. Homemade Field Cultivators, by J. R. Paulling, M. W. Clark, and R. L. Ricketts. April 1943. 7 pp.
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495. Meeting the Storage Needs of Small Children, by Louise Woodruff. September 1943. [4] pp.
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497. Planting Methods for Farm Woodlands, by Robert L. Curtis. October 1943. [4] pp.
498. Soft Corn Facts, by L. A. Weaver. October 1943. [4] pp.
499. Essential Practices in Growing Thirteen Popular Vegetables: Tomatoes, Bush Beans, Dry Beans, Irish Potatoes, Sweet Potatoes, Sweet Corn, Cabbage, Peas, Cucumbers, Muskmelons, Squashes, Pumpkins, and Watermelons. (For 4-H Clubs and General Use), by [J. W. C. Anderson and Robert S. Clough]. November 1943. 16 pp.

500. Soybeans in Family Meals, by Flora L. Carl and Letha K. Jopling. November 1943. 12 pp.
501. Food for the Infant, by Flora L. Carl and Letha K. Jopling. November 1943. 4 pp.
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513. Vegetables for the Family,† by Flora L. Carl and Letha K. Jopling. December 1944. 24 pp.

### Agricultural Extension Service Leaflets

1. Children Need Milk, by [Essie M. Heyle]. February 1920. [2] pp.
2. Temperatures,† by Mrs. Louis Selbert. June 1919. 2 pp.
3. Constipation,† by Mrs. Louis Selbert. June 1919. 1 p.
4. Meal Planning,† by Essie M. Heyle. June 1919. 2 pp.
5. Healthful Clothes for Children,† by Mary Robinson. July 1919. 2 pp.
6. Some Substantial Milk Dishes,† by Lillian Whaley. July 1919. 2 pp.
7. Milk Desserts, by Lillian Whaley. July 1919. Third Edition, October 1927. [2] pp.
8. Keeping Physically Fit,† by Mrs. Louis Selbert. September 1919. 2 pp.
9. The Family Medicine Chest, by Mrs. Louis Selbert. September 1919. 2 pp.
10. Cause and Treatment of Boils, by Mrs. Louis Selbert. September 1919. 2 pp.
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12. The Modern Rural Home and Health, by Essie M. Heyle. February 1920. [2] pp.
13. Covered or Stinking Smut of Wheat, by G. M. Reed. August 1920. [2] pp.

14. Simple Water System for the Farm Home, by E. W. Lehmann. August 1921. [2] pp.
15. Hot and Cold Water in the Farm Home, by E. W. Lehmann. August 1921. [2] pp.
16. Gravity System Water Supply for the Farm Home, by E. W. Lehmann. August 1921. [2] pp.
17. Pneumatic Water System for the Farm Home, by E. W. Lehmann. August 1921. [2] pp.
18. Separating Cracked and Whole Soybeans, by D. W. Frear. February 1922. [2] pp.
19. Growing Field Beans, by W. C. Etheridge. February 1923. [2] pp.
20. Broom Corn Production, by C. E. Carter. February 1923. [2] pp.
21. Fourth Summer Spray for Apples, Directions for Making and Applying, by [E. A. Bierbaum, D. E. Eicher, and A. P. Boles]. June 1923. [2] pp.
22. Dormant Spraying of Fruit Trees: Apple, Peach, Pear, Plum, Cherry, and Quince, by Otis Wade. February 1924. [2] pp.
23. Changes in Canning Vegetables, Season of 1924, by Essie M. Heyle. July 1924. [2] pp.
24. Tomato Plant-Bed Spraying, by E. M. Page. April 1925. [2] pp.
25. Soybean Varieties for Seed and for Hay, by C. A. Helm. March 1928. [2] pp.
26. Growing Soybeans for Hay, by C. A. Helm. March 1928. [2] pp.
27. Growing Barley for Grain, by C. A. Helm. July 1929. [2] pp.
28. Growing Oats in Missouri, by C. A. Helm. July 1929. [2] pp.
29. Catch Crops, by C. A. Helm. July 1929. [2] pp.
30. The Management of Permanent Pastures in Missouri, by C. A. Helm. July 1929. [2] pp.
31. Crimson Clover, Kudzu, Beggarweed, and Dalea, by C. A. Helm. July 1929. [2] pp.
32. Canada Field Peas, by C. A. Helm. July 1929. [1] p.
33. Growing Cowpeas, by C. A. Helm. July 1929. [2] pp.
34. Rape for Pasture, by C. A. Helm. July 1929. [2] pp.
35. Growing Vetch, by C. A. Helm. July 1929. [2] pp.
- 35.\* Better Practices in Oat Production, by Ide P. Trotter. February 1936. [2] pp.
36. Rape for Pasture: Oats and Canada Field Peas for Hay, by Ide P. Trotter. February 1936. [2] pp.
37. The Oats-Korean Combination, by C. A. Helm. February 1936. [2] pp.
38. Testing Seed Corn, by Ide P. Trotter. March 1936. [2] pp.
39. Low Hop Clover, by C. A. Helm. March 1936. [2] pp.
40. Canada Thistle, by C. A. Helm. March 1936. [2] pp.
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42. Growing Cowpeas for Hay, by Ide P. Trotter. March 1936. [2] pp.
43. Sow Lespedeza in Corn, by C. A. Helm. March 1936. [2] pp.
44. Lespedeza for Winter Pasture, by C. A. Helm. March 1936. [2] pp.
45. Johnson Grass, by C. A. Helm. March 1936. [2] pp.
46. Baled Straw Silos, by K. B. Huff. September 1936. [2] pp.

- 46.\* Thick Spacing of Cotton for Missouri, by J. R. Paulling. March 1938. [2] pp.
48. Using a Pressure Cooker for Canning, by Flora L. Carl. January 1939. Third Edition, April 1940. [2] pp.
49. Soybeans and Winter Barley in One-Year Rotation, by J. Ross Fleetwood. May 1939. [2] pp.
50. Planting Guide for Trees and Shrubs. January 1943. [2] pp.
51. Flax in Missouri, by B. M. King. February 1943. [2] pp.

### Agricultural Extension Service Manuals

1. Parliamentary Rules for Home Economics Extension Clubs. October 1938. 4 pp.
2. Manual of Information on the Use and Care of the Farm Level, by Marion Clark. August 1938. 10 pp.
3. 4-H Club Announcement. October 1938. 24 pp.
4. Manual for Home Economics Extension Clubs. October 1938. 47 pp.
5. Writing Extension News, by Newspaper Men and Agricultural Extension Workers of Missouri. November 1938. 24 pp.
6. Soil Building Practices in the 1939 Agricultural Conservation Program. January 1939. 11 pp.
7. Measuring Annual Changes in Soil Productivity, by O. T. Coleman and A. W. Klemme. March 1939. [12] pp.
8. Soil Building Practices in the 1940 Agricultural Conservation Program. December 1939. 20 pp.
9. How to Write Interesting Club News, by A. A. Jeffrey. February 1940. 8 pp.
10. "Crooked Farming," the Trail to Better Living: A Three-Act Playlet to be Presented by Elementary School Children. October 1940. 12 pp.
11. Soil Building Practices in the Agricultural Conservation Program. December 1940. 24 pp.
12. 1940 Report of the Yield Trials With Corn Hybrids and Varieties in Missouri, by Robert E. Powell and Dean C. Anderson. February 1941. 26 pp.
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14. Suggestions for Leaders in Meat Cutting Demonstrations, by T. A. Ewing. October 1941. 16 pp.
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17. Fruit for the Family, by Flora L. Carl and Letha O. Knight. November 1941. 12 pp.
18. Vegetables for the Family, by Letha O. Knight and Flora L. Carl. December 1941. 19 pp.
19. Suggestions for the Leaders in Home Growing and Use of Vegetables, by J. W. C. Anderson, Flora L. Carl, and Letha Knight. January 1942. 7 pp.
20. The Agricultural Outlook for Missouri, 1942, by Gordon B. Nance. January 1942. [55] pp.

21. The Missouri 4-H Club Manual. January 1942. 40 pp.
22. Leaders' Suggestions in Producing and Using Eggs and Poultry, by Flora L. Carl and C. E. Rohde. January 1942. [4] pp.
23. Chicken and Turkey for the Farm, by Flora L. Carl and Letha O. Knight. February 1942. 12 pp.
24. 1941 Report of the Yield Trials With Corn Hybrids and Varieties in Missouri, by Dean C. Anderson, Leon L. McHoney, and Robert E. Powell. February 1942. 23 pp.
25. Suggestions for Dairy Leaders, by Letha O. Knight and M. J. Regan. April 1942. [2] pp.
26. Parliamentary Procedure for Farm Groups, by Julia M. Rocheford. April 1942. 12 pp.
27. A Guide for Agronomic and Soil Conservation Planning in Missouri, by [W. R. Tascher, R. A. Kinnaird, W. M. Shotwell, and others]. September 1942. 47 pp.
28. The Agricultural Outlook for Missouri, 1943, by Gordon B. Nance. January 1943. [48] pp.
29. Conservation of Home Equipment, by [Madonna Fitzgerald and Louise Woodruff]. January 1943. 16 pp.
30. 1942 Report of the Yield Trials With Corn Hybrids and Varieties in Missouri, by Dean C. Anderson. February 1943. 15 pp.
31. Small Repairs Around the House, by Madonna Fitzgerald and Louise Woodruff. November 1943. 16 pp.
32. 4-H War Projects, 1944. November 1943. 12 pp.
33. The Agricultural Outlook for Missouri, 1944, by Gordon B. Nance. January 1944. 47 pp.
34. Variations in Production per Farm and per Worker in Missouri, 1939, by Herman M. Haag. May 1944. 24 pp.
35. Suggestions for Securing Effective Participation of Rural People in Educational Programs. June 1944. 22 pp.

### **Agricultural Extension Service Project Announcements**

1. Annual Report of State Leader of Farm Advisers, by D. H. Doane. January 1915. 11 pp.
2. Agricultural Collections for School Laboratories. January 1915. 29 pp.
3. Boys' and Girls' Clubs, by R. H. Emberson and G. W. Reavis. January 1915. 24 pp.
4. School Exhibits and Contests, by D. H. Doane. February 1915. 26 pp.
5. Extension Projects in Agriculture and Home Economics. November 1915. 12 pp.
6. Farmers' Week, January 3-7, 1916. December 1915. 58 pp.
7. The Work of the Agricultural Extension Service, July 1, 1914-June 30, 1915: [First Annual Report], by F. B. Mumford and [A. J. Meyer]. January 1916. 44 pp.
8. Women's Club Work, by Bab Bell. February 1916. 11 pp.
9. Boys' and Girls' Clubs, by R. H. Emberson, G. W. Reavis, and Addie D. Root. July 1916. 23 pp.
10. Farmers' Week, January 1-5, 1917. December 1916. 48 pp.

11. Extension Schools in Agriculture, by W. H. Hargrove. October 1917. 16 pp.
12. Agricultural Extension Work: Report for the Year 1918, With Comparative Data for Preceding Years, by A. J. Meyer. March 1919. 54 pp.
13. Annual Report of Agricultural Extension Service, 1920, by P. H. Ross. April 1921. [36] pp.
14. Extension Projects in Agriculture and Home Economics, 1922, by A. J. Meyer. January 1922. 23 pp.
15. Demonstration Farm Flocks and Certified Poultry Breeding, by T. S. Townsley. May 1922. 7 pp.
16. Ten Years of Extension Work in Missouri. January 1923. 112 pp.
17. Boys' and Girls' Club Work, by R. H. Emberson. February 1923. 16 pp.
18. Extension Projects in Agriculture and Home Economics, 1923, [edited by P. H. Ross]. January 1923. 24 pp.
19. Homemakers' Club Program, 1924-25. April 1924. 8 pp.
20. Taking the College to the People, by A. J. Meyer. July 1924. 67 pp.
21. Plans for Conducting Boys' and Girls' 4-H Club Work in Missouri, by [Theodore T. Martin and others]. January 1925. 48 pp.
22. Ten Years of Extension Work Under the Smith-Lever Act, 1914-1924, by C. B. Smith. February 1925. 15 pp.
23. Forward Steps in Rural Life: Biennial Report of the Agricultural Extension Service. May 1926. 83 pp.
24. Plans for Conducting Boys' and Girls' 4-H Club Work in Missouri, by [T. T. Martin and others]. August 1927. 95 pp.
25. Making the Farm Pay: [Biennial Report of the Agricultural Extension Service], by A. J. Meyer and A. A. Jeffrey. June 1928. 115 pp.
26. Manual for Neighborhood Women's Clubs, by Essie M. Heyle, Bina Slaughter Davis, and Gladys Muilenburg. September 1928. 47 pp.
27. Plans for Conducting Boys' and Girls' 4-H Club Work in Missouri, by [T. T. Martin and others]. September 1928. 98 pp.
28. A Program for Missouri Agriculture, by the General Committee: [A. J. Meyer, chairman; Mrs. W. O. Redford, R. Q. Brown, Patterson Bain, E. R. Cole, W. A. Cochel, E. J. Rodekohr, and others]. June 1929. 24 pp.
29. Increasing Farm Efficiency: [Report of the Agricultural Extension Service for the Year Ending November 30, 1928], by A. J. Meyer. August 1929. 88 pp.
30. Plans for Conducting 4-H Club Work in Missouri, by [T. T. Martin and others]. February 1930. 102 pp.
31. Better Farming in Missouri: [Report of the Agricultural Extension Service for the Year Ending November 30, 1929], by A. J. Meyer. June 1930. 72 pp.
32. Manual for Neighborhood Women's Clubs, by Essie M. Heyle and Gladys Muilenburg. January 1931. 53 pp.
33. Manual for Home Economics Extension Clubs, by Essie M. Heyle. April 1935. 55 pp.



## 4-H Club Circulars

Title varies. The earlier circulars were published under the titles: Boys' and Girls' Club Circulars, Boys' and Girls' 4-H Club Circulars.

1. Garment Making: I. Household Project, by [Essie M. Heyle, Mrs. J. K. Fyfer, and Catherine Bedford]. August 1922. Reprinted, October 1923. 51 pp.
2. Garment Making: II. Undergarment Project, by [Essie M. Heyle, Mrs. J. K. Fyfer, and Mrs. W. C. Etheridge]. December 1922. 40 pp.
3. The Baby Beef Club, by [H. M. Garlock and Mrs. J. K. Fyfer]. February 1923. 30 pp.
4. The Poultry Club, I, by [T. S. Townsley and Mrs. J. K. Fyfer]. March 1923. 34 pp.
5. Potato Growing Club, by [E. M. Page and Mrs. J. K. Fyfer]. March 1923. 28 pp.
6. The Corn Club, I and II, by [D. W. Frear and Mrs. J. K. Fyfer]. April 1923. 24 pp.
7. Canning Club, I, by [Essie M. Heyle and Mrs. J. K. Fyfer]. June 1923. 23 pp.
8. Canning Club, II, by [Essie M. Heyle and Mrs. J. K. Fyfer]. June 1923. 27 pp.
9. Tomato Growing, by [E. M. Page and Mrs. J. K. Fyfer]. June 1923. 24 pp.
10. Garment Making: III. Winter Clothes for Girls, by [Essie M. Heyle, Mrs. J. K. Fyfer, and Mrs. W. C. Etheridge]. November 1923. 32 pp.
11. Sow and Litter Club, by [J. M. Burch and Theodore T. Martin]. February 1924. 32 pp.
12. Dairy Calf Clubs, I, II, and III, by [E. M. Harmon and Theodore T. Martin]. March 1924. 38 pp.
13. Songs and Yells for Missouri Boys' and Girls' Clubs, compiled by [Theodore T. Martin, R. H. Emberson, and Jane Hinote]. April 1924. 39 pp.
14. The Grain Judging Club, by [C. E. Carter and Theodore T. Martin]. June 1924. [32] pp.
15. The Health and First Aid Project, by [Mary E. Stebbins and Jane Hinote]. August 1925. 37 pp.  
Health and First Aid, by [Mary E. Stebbins and Sara H. Chiles]. Third Edition. October 1934. 28 pp.
16. The Poultry Club: II. Flock Management Club, by [H. L. Shrader and Theodore T. Martin]. April 1925. 27 pp.
17. Poultry Club: III. The Poultry Breeding Club, by [Berley Winton and Theodore T. Martin]. March 1926. 24 pp.
18. Songs and Yells for Missouri Boys' and Girls' 4-H Clubs. April 1926. 46 pp. [Revision of Circular 13]
19. Baking Club, I, by [Essie M. Heyle, Jane Hinote, and Sara H. Chiles]. May 1926. 40 pp.
20. Ewe and Lamb Club, by [S. F. Russell and T. T. Martin]. June 1926. 36 pp. Third Edition. December 1929. 36 pp.
21. Garment Making Club, I, by [Essie M. Heyle, Jane Hinote, Sara H. Chiles, Catherine Bedford, and Virginia Bedford]. June 1926. 63 pp

- 4-H Clothing Club: I. Household Articles, by [Essie M. Heyle and Jane Hinote]. June 1929. [52] pp.
- 4-H Clothing Club, I, by [Essie M. Heyle, Mary E. Robinson, Mrs. Edith G. Van Deusen, and Jane Hinote]. March 1931. 40 pp.
- Clothing Club: I. Clothes and How to Care for Them, by [Mary E. Robinson and Jane Hinote]. Fourth Edition. March 1937. 24 pp.
22. The 4-H Baby Beef Club, by [H. M. Garlock and T. T. Martin]. June 1926. Reprinted, February 1929. [36] pp.
23. Garment Making: II. Summer Clothes for Girls, by [Essie M. Heyle, Mary E. Robinson, Mrs. Edith G. Van Deusen, Lois Martin, Jane Hinote, and Sara H. Chiles]. December 1926. 47 pp.
- Clothing Club: II. Summer Clothes for Girls, by [Essie M. Heyle, Mary E. Robinson, Mrs. Edith G. Van Deusen, Lois Martin, and Jane Hinote]. Third Edition. May 1929. 46 pp.
- Clothing Club: II. Summer Clothes for Girls, by [Essie M. Heyle, Mary E. Robinson, and Jane Hinote]. Revised, January 1932. 43 pp.
24. 4-H Clothing Club: III. Winter Clothes for Girls, by [Essie M. Heyle, Mary E. Robinson, Mrs. Edith G. Van Deusen, Lois Martin, and Jane Hinote]. Second Edition. January 1929. 44 pp.
25. Food Preparation: The Supper Club, by [Marion K. White, Jane Hinote, Margaret C. Huston, and Marion E. Dunshee]. April 1928. 39 pp.
- Foods Club: The 4-H Supper Club, by [Marion K. White, Jane Hinote, Margaret C. Huston, and Sara Chiles]. Reprinted, January 1930. 40 pp.
26. Dairy: I. The 4-H Dairy Calf Club, by [M. J. Regan, A. F. Stephens, and T. T. Martin]. March 1929. [26] pp.
27. Dairy: II. The 4-H Bred Heifer Dairy Club, by [M. J. Regan, A. F. Stephens, and T. T. Martin]. March 1929. 26 pp.
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- The 4-H Pig Club, by [J. W. Burch and J. Ross Fleetwood]. Reprinted, March 1931. 51 pp.
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- Food and Nutrition Club: Food Preservation, I, by [Flora L. Carl and Jane Hinote]. June 1934. 28 pp. Reprinted, February 1937. 36 pp.
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35. Recreational Activities for 4-H Clubs, by Jane Hinote. November 1932. 47 pp. Reprinted, January 1940. 54 pp.

36. The 4-H Health and Sanitation Project, by [Mary E. Stebbins and Sara Chiles]. April 1930. 52 pp. [Reprinted], May 1932. 36 pp.
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## VOLUME 14

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## INDEXES





## AUTHOR INDEX

All references are to pages. In instances of joint authorship, titles are listed under the author whose name appears first, and cross reference is made under the name of each additional author.

### **Abbott, Ouida Davis**

Utilization of Pentoses by Yeasts and the Composition of Plant Gums, 105

### **Ahmann, C. F.**

— with Hooker, Henry D., Jr.  
Estimation of Pectin and A Study of the Constitution of Pectin, 105

### **Ainsworth, Edward G.**

— with Noyes, Charles E.  
Christopher Smart: A Biographical and Critical Study, 10

### **Albrecht, William A.**

Artificial Manure Production on the Farm, 80, 84  
Bat Guano and Its Fertilizing Value, 77

Drilling Fine Limestone for Legumes, 84

Drilling Limestone for Legumes, 87

Inoculation for Legumes, 94

Inoculation of Legumes, 82

Legume Inoculation, 81

Methods of Incorporating Organic Matter With the Soil in Relation to Nitrogen Accumulations, 115

Nitrate Nitrogen in the Soil as Influenced by the Crop and the Soil Treatments, 115

Nitrate Production in Soils as Influenced by Cropping and Soil Treatments, 117

Soil Inoculation for Legumes, 93

— with Turk, Lloyd M.

Legume Bacteria With Reference to Light and Longevity, 108

*See also* Ferguson, Carl E.

Haigh, Leonard D.

Hampton, Herbert E.

Miller, Merritt F.

Vanderford, Harvey B.

### **Allen, Denver I.**

Differential Growth Response of Certain Varieties of Soybeans to Varied Mineral Nutrient Conditions, 121

*See also* King, Bascom M.

### **Allen, E. J.**

— with Talbert, Thomas J.  
Tomato Culture in Missouri, 96

### **Alley, H. R.**

*See* Reid, William H. E.

### **Allison, H. O.**

Corn Silage for Fattening Two-Year-Old Steers, 74

Corn Silage With and Without Shelled Corn in Rations for Fattening Steers, 75

Preparation of Corn for Fattening Two-Year-Old Steers, 75

### **Almack, Ronald B.**

Rural Health Facilities of Lewis County, Missouri, 121

*See also* Lively, Charles E.

### **Anderson, A. G.**

— with Hooker, Henry D., Jr.

Soil Treatments and Seasonal Changes in the Sour Cherry, 106

### **Anderson, C. O.**

Scientific Fundamentals of Gravity Concentration, Translation of, 157

### **Anderson, Dean C.**

1942 Report of the Yield Trials With Corn Hybrids and Varieties in Missouri, 143

— with McHoney, L. L. and Powell, R. E.

1941 Report of the Yield Trials With Corn Hybrids and Varieties in Missouri, 143

*See also* Powell, Robert E.

### **Anderson, Ernest Mitchell**

Individual Differences in the Reading Ability of College Students, 45

### **Anderson, J. W. C.**

Family Garden, 132

Family Vegetable Supply, 137

Growing Vegetables This Year, 138

Home Vegetable Garden, 131

Victory Gardens for Town and City Families, 139

— with Carl, F. L. and Knight, L. O.

Suggestions for the Leaders in Home Growing and Use of Vegetables, 142

— with Clough, Robert S.

Essential Practices in Growing Thirteen Popular Vegetables, 139

— with Huff, Kenneth B.

Storing the Family Food Supply, 139

— with Martin, Theodore T.

4-H Tomato Club, 147

*See also* Schroeder, Raymond A.

**Anderson, Lola**

Missouri Alumni in Journalism: A Directory of Graduates and Former Students, Sixth Edition, 55

**Andrews, Frederick N.**

— with McKenzie, Fred F.  
Estrus, Ovulation, and Related Phenomena in the Mare, 119

**Appleby, Virginia**

See Bisbey, Bertha

**Arbuckle, W. S.**

Microscopic and Statistical Analysis of Texture and Structure of Ice Cream as Affected by Composition, Physical Properties, and Processing Methods, 119

See also Decker, C. W.

Mull, L. E.

Reid, William H. E.

**Armsby, Henry H.**

See McCandliss, Edgar S.

**Armstrong, Orland Kay**

Beginnings of the Modern Newspaper: A Comparative Study of St. Louis Dailies From 1875 to 1925, 54

Circulation of the Small-City Daily, 54

**Asdell, S. A.**

See Brody, Samuel

**Ashton, John**

Growth and Development, With Special Reference to Domestic Animals:

XIII. The Influence of Certain Geographical and Historical Conditions on the Physical Development of Lombardy, Brown-Swiss, Brittany, Dairy Shorthorn, Ayrshire, and Beef Shorthorn Breeds of Cattle, 108

**Ashworth, Ural S.**

Growth and Development, With Special Reference to Domestic Animals:

XXXVI. Endogenous Nitrogen and Basal Energy Relationships During Growth, 113

XXXVII. Interrelations Between Protein Intake, Endogenous Nitrogen Excretion, and Biological Value of Protein, 114

— with Brody, Samuel

Growth and Development, With Special Reference to Domestic Animals:

XXVII. Endogenous Urinary Nitrogen and Total Creatinine Excretion in Rats as Functions of Dietary Protein Level, Time on

N-Free Diets, Age, Body Weight, and Basal Metabolism, 111

XXVIII. Decline of Endogenous Nitrogen Excretion per Unit Weight With Increasing Weight in Growing Rats, and Its Relation to the Decline in Basal Metabolism; Decline in Live Weight, Nitrogen, and Energy Metabolism With the Advance of the Period of Nitrogen Starvation and the Influence of Live Weight and of Preceding Level of Protein Intake on These Declines and on the Survival Periods; 111

XXIX. Age Curves of Creatinine and Urinary Nitrogen Coefficients in Dairy Cattle, and Their Relations to Energy Metabolism, 111-112

— with Brody, S. and Hogan, A. G.  
Growth and Development, With Special Reference to Domestic Animals:

XX. Relation Between Basal Metabolism and Body Weights in the Growing Rat, 110

See also Brody, Samuel

Johnson, S. R.

Phillips, Virgil W.

**Atherton, Lewis E.**

Pioneer Merchant in Mid-America, 10

**Atkinson, Thomas E.**

Brief History of English Testamentary Jurisdiction, 63

Missouri's New Civil Procedure: A Critique of the Process of Procedural Improvement, 63

Parties and Pleadings in the Missouri Proposed Code of Civil Procedure, 62

**Atwood, Frank E.**

Missouri Rule as to Regulation of the Bar, 61

**Babb, Joseph Glenn**

Short History of the University, 66

**Backus, L. S.**

Common Parasites of Farm Animals: Their Prevention and Treatment, 94

Treatment of Common Parasites Affecting Farm Animals, 123

**Bain, H. Foster**

Training for Foreign Exploration, address, 151

**Bain, Patterson**

See Meyer, A. J.

- Baker, Dan D.**  
*See* Robertson, Don D.
- Baker, H. H.**  
*See* Murneek, Andrew E.
- Baker, Robert H.**  
 Eclipsing Binary RS Vulpeculae, 43  
 Eclipsing Binary TW Draconis, 43  
 Eclipsing Binary TX Herculis, 43  
 Eclipsing Binary U Cephei, 43  
 Eclipsing Binary U Coronae, 43  
 Eclipsing Binary u Herculis, 43  
 Eclipsing Binary Z Vulpeculae, 43  
 Studies With the Polarizing Photometer: The Geminid Variable YZ Sagittarii (140.1908); The Lyrid Variable Z Vulpeculae (26.1900); The Algol Variable RZ Scuti (35.1908); Preliminary Note on the Variation of TU Cassiopeiae (17.1911); 43  
 — with Cummings, Edith E.  
 Eclipsing Binary RX Herculis, 43  
 Investigations in Extrafocal Photometry, 43
- Baker, W. H.**  
 Soil Saving Dam, 123
- Baldridge, Holmes**  
 Effect Upon State Powers of Expanded Federal Control in the Public Utility Field, 61
- Barclay, Thomas S.**  
 Movement from Municipal Home Rule in St. Louis, 10
- Bardsley, Clarence Edward**  
 Meridian Determination by Horizontal Angle Between Two Stars Applied to Alpha and Beta Ursae Minoris, 156  
 Utilization of Blast Furnace Slag in Highway Improvement, abstract, 157
- Barker, Howard H.**  
 — with Schlundt, Herman  
 Experiments on the Extraction and Recovery of Radium From Typical American Carnotite Ores, Including Contributions to Methods of Measuring Radium, 47
- Barrett, Paul W.**  
 Allocation (in two parts), 63
- Barton, Glen T.**  
*See* Hammar, Conrad H.
- Bauguess, L. C.**  
*See* McKenzie, Fred F.
- Baur, Paul V. C.**  
 Eileithya, 11
- Baver, Leonard D.**  
 Effect of the Amount and Nature of Exchangeable Cations on the Structure of a Colloidal Clay, 108  
 Soil Erosion in Missouri, 84  
 — with Bruner, F. H.  
 Rapid Soil Tests for Estimating the Fertility Needs of Missouri Soils, 86  
 — with Hall, Nathan S.  
 Colloidal Properties of Soil Organic Matter, 116
- Beasley, Robert P.**  
 Supplemental Irrigation in Missouri, 86  
*See also* Helm, Charles A.  
 Jones, Mack M.  
 Wooley, John C.
- Bedford, Catherine**  
*See* Heyle, Essie M.
- Bedford, Virginia**  
*See* Heyle, Essie M.
- Belden, Henry M.**  
 Ballads and Songs Collected by the Missouri Folk-Lore Society, 10
- Bell, Bab**  
 Cold School Lunch, 123  
 Homemakers' Club, 123  
 How to Save Fats, 124  
 Women's Club Work, 143  
 — with Root, Addie D.  
 Canning in Glass by the Cold Pack Method, 123
- Bennett, Freida Mae**  
 — with Robinson, M. E., Church, H. L., and Sontag, M.  
 A. B. C.'s of Clothing, 137  
 Clothes for Occasion, 138  
 Simple Cotton Garments, 137  
 Summer Clothes for Girls, 138
- Bennett, Norrine Grover**  
 Comparison of Qualities and Prices of Sheets Available in Missouri Stores, 87  
 — with Keeney, Pauline E.  
 Study of Towels and Toweling for Consumer Use, 88
- Bennitt, Rudolf**  
 Check-List of the Birds of Missouri, 8  
 — with Nagel, Werner O.  
 Survey of the Resident Game and Furbearers of Missouri, 9  
*See also* Nagel, Werner O.  
 Westveld, R. H.
- Bergman, A. J.**  
 — with Turner, Charles W.  
 Extraction, Separation, and Concentration of Some Anterior Pituitary Hormones, 121
- Berliner, Victor**  
*See* McKenzie, Fred F.

- Bernard, Paul M.**  
 See Mumford, Frederick B.  
 Stadler, Lewis J.
- Berryman, Clifford K.**  
 Development of the Cartoon, 54
- Bestor, H. Paul**  
 See Miller, Merritt F.
- Bierbaum, E. A.**  
 — with Eicher, D. E. and Boles, A. P.  
 Calyx Spray for Apples, Pears, and Quinces, 126  
 Cluster-Bud Spray for Apples, Making and Applying, 126  
 Fourth Summer Spray for Apples, Directions for Making and Applying, 141  
 Spraying for the Second Brood of Codling Moth, 126  
 Third Summer Spray for Apples, Directions for Making and Applying, 126
- Bird, R. M.**  
 Directions for Making Bordeaux Powder, 90  
 New Bordeaux Powder for Spraying Fruit Trees Against Fungi, 72  
 See also Schweitzer, Paul
- Birkett, T. E.**  
 Bees to Lift the Sugar Bowl, 138
- Bisbey, Bertha**  
 — with Appleby, V., Weis, A., and Cover, S.  
 Vitamins A and D Activity of Egg Yolks of Different Color Concentrations, 112
- Blumenthal, Leonard M.**  
 Distance Geometries: A Study of the Development of Abstract Metrics, 9
- Bogart, Ralph**  
 Producing Rabbits for Meat, 99  
 See also Lasley, John F.  
 Weaver, Luther A.
- Boggs, Marion William**  
 Attempts to Define and Limit "Aggressive" Armament in Diplomacy and Strategy, 10
- Bohn, G. W.**  
 — with Tucker, Clarence M.  
 Studies on Fusarium Wilt of the Tomato: I. Immunity in *Lycopersicon pimpinellifolium* Mill. and Its Inheritance in Hybrids, 218
- Boles, Ashleigh P.**  
 Harvesting the Missouri Grape Crop, 127  
 Strawberries in the Ozarks: How to Get a Stand, 126  
 See also Bierbaum, E. A.  
 Faurot, F. W.
- Boney, W. C.**  
 See Winton, Berley
- Booth, N. O.**  
 Spray Calendar, 90  
 Test of Spray Nozzles, 71
- Bopp, Karl R.**  
 Agencies of Federal Reserve Policy, 9  
 Hjalmar Schacht: Central Banker, 10
- Bordwell, Percy**  
 Interests in Chattels Real and Personal, 60
- Boucher, Robert V.**  
 See Hogan, Albert G.
- Bour, J. Coy**  
 American Law Institute's Restatement of the Law of Conflict of Laws With Annotations to the Missouri Authorities, Sections 79-92 and 93-115 (in two parts), 60  
 Recent Missouri Decisions and the Restatement of the Conflict of Laws, 61
- Bowen, Calvin M.**  
 See McCormick, Leighton E.
- Bowles, J. D.**  
 Acetylene for Lighting Country Homes, 46
- Bowman, Georgia**  
 Journalism Week, 1944, 56
- Bowman, Herbert Lloyd**  
 Relation of Reported Preference to Performance in Problem Solving, 45
- Bradfield, Hannah Stillman**  
 Determination of the Surface Area of Young Women and Its Use in Expressing Basal Metabolic Rate, 106
- Bradfield, Richard**  
 Chemical Nature of a Colloidal Clay, 103
- Bradford, F. C.**  
 Observations on Winter Injury: I. Early and Late Winter Injury, 103  
 Relation of Temperature to Blossoming in the Apple and the Peach, 103  
 Winter Injury of Fruit in Missouri, 93  
 See also Hooker, Henry D., Jr.
- Bradshaw, William Leonard**  
 Missouri County Court: A Study of the Organization and Functions of the County Board of Supervisors in Missouri, 8  
 — with Garrison, Milton  
 Township Organization in Missouri, 9

**Brady, Thomas Allan**

Reception of the Egyptian Cults by the Greeks (330-30 B. C.), 9

**Brandt, P. M.**

How to Build a Gurler Silo, 92

**Brannen, C. O.**

— with Gromer, S. D.

Taxation of Farms in Missouri, 105

**Brannon, Victor D.**

State Auditor and Fiscal Control in Missouri Counties, 10

**Branson, Carl C.**

Paleontology and Stratigraphy of the Phosphoria Formation, 8

**Branson, Edwin B.**

Devonian Fishes of Missouri, 66

Geology of Missouri, 11, 46

Notes on the Ohio Shales and Their Faunas, 66

Some Observations on the Geography and Geology of Middle-Eastern Costa Rica, 7

Stratigraphy and Paleontology of the Lower Mississippian of Missouri, Part I, 9

— with Mehl, Maurice G.

Conodont Studies Numbers One, Two, and Three, (three bulletins), 8

Triassic Amphibians From the Rocky Mountain Region, 8

— with Mehl, M. G. and Branson, E. R.

Conodont Studies Number Four, 8

— with Mehl, M. G., Miller, A. K., Peck, R., Keyte, I. A., and Furnish, W. M.

Stratigraphy and Paleontology of the Lower Mississippian of Missouri, Part II, 10

**Branson, Edwin R.**

See Branson, Edwin B.

**Branstetter, B. B.**

Corn Root Rot, 94

Corn Root Rot Studies, 107

**Bratton, Samuel Tilden**

Geography of the St. Francis Basin, 7

**Breckenridge, A. C.**

See Heinberg, John G.

**Bridge, Josiah**

Ebb and Flow Springs in the Ozarks, 156

See also Dake, Charles Laurence

**Brock, R. L.**

See Reid, William H. E.

**Brody, Samuel**

Growth and Development, With Special Reference to Domestic Animals:

III. Growth Rates, Their Evaluation and Significance, 106

IV. Growth Rates During the Self-Accelerating Phase of Growth, 106

VI. Growth Rates During the Self-Inhibiting Phase of Growth, 106

VII. Equivalence of Age During the Self-Inhibiting Phase of Growth, 106

VIII. Relation Between Weight Growth and Linear Growth With Special Reference to Dairy Cattle, 106

IX. Comparison of Growth Curves of Man and Other Animals, 106

X. Relation Between the Course of Growth and the Course of Senescence With Special Reference to Age Changes in Milk Secretion, 106

XII. Additional Illustrations of the Influence of Food Supply on the Velocity Constant of Growth and on the Shape of the Growth Curve, 107

XLVI. Relation Between Heat Increment of Gestation and Birth Weight, 117

LVI. The Influence of Dairy Merit, Body Size, and Plane of Nutrition on the Economy of Milk Production, 121

— with Campbell, John

Growth and Development, With Special Reference to Domestic Animals:

XLVIII. Relation Between Body Weight, Amount of Wool or Feathers, and Temperature Regulation, 117

— with Comfort, J. E. and Matthews, J. S.

Growth and Development, With Special Reference to Domestic Animals:

XI. Further Investigations on Surface Area With Special Reference to Its Significance in Energy Metabolism, 107

— with Cunningham, Richard

Growth and Development, With Special Reference to Domestic Animals:

XXXVIII. Further Studies on the Energetic Efficiency of Milk Production and the Influence of Live Weight Thereon, 114

XXXIX. Relation Between Monetary Profit and Energetic Efficiency

ciency of Milk Production With Special Reference to the Influence of Live Weight Thereon, 114

XL. Comparison Between Efficiency of Horse, Man, and Motor, With Special Reference to Size and Monetary Economy, 114-115

— with Davis, H. P. and Ragsdale, A. C.

Growth and Development, With Special Reference to Domestic Animals:

XLI. Relation Between Live Weight and Chest Girth in Dairy Cattle of Unknown Age (Includes the Missouri-Nebraska Standard for Estimating Live Weight From Chest Girth), 115

— with Elting, Erwin C.

Growth and Development, With Special Reference to Domestic Animals:

II. New Method for Measuring Surface Area and Its Utilization to Determine the Relation Between Growth in Surface Area and Growth in Weight and Skeletal Growth in Dairy Cattle, 105

— with Frankenbach, R. F.

Growth and Development, With Special Reference to Domestic Animals:

LIV. Age Changes in Size, Energy Metabolism and Cardio-Respiratory Activities of Thyroidectomized Cattle, 120

— with Funk, E. M. and Kempster, H. L.

Growth and Development, With Special Reference to Domestic Animals:

XIX. Relation Between Basal Metabolism and Body Weight in the Growing Domestic Fowl, 110

XLIV. Energetic Efficiency of Egg Production and the Influence of Weight Thereon, 116

— with Hall, W. C., Ragsdale, A. C., and Trowbridge, E. A.

Growth and Development, With Special Reference to Domestic Animals:

XVII. Relation Between *Resting* Energy Metabolism and Body Weight in Growing Domestic Mammals, 110

XVIII. Relation Between Basal Metabolism, Resting Metabolism, Heat Increments of Feeding and Body Weights in Growing Farm Mammals, 110

— with Hall, W. C., Ragsdale, A. C., Trowbridge, E. A., Funk, E. M., Kempster, H. L., Ashworth, U. S., Hogan, A. G., and Procter, R. C.

Growth and Development, With Special Reference to Domestic Animals:

XXIV. The Decline in Energy Metabolism per Unit Weight With Increasing Age in Farm Animals, Laboratory Animals, and Humans, 110

— with Hogan, A. G., Kempster, H. L., Ragsdale, A. C., and Trowbridge, E. A.

Growth and Development, With Special Reference to Domestic Animals:

I. Quantitative Data, 106

— with Kibler, Hudson H.

Growth and Development, With Special Reference to Domestic Animals:

LII. Relation Between Organ Weight and Body Weight in Growing and Mature Animals, 119

LIX. Resting Energy Metabolism and Pulmonary Ventilation in Growing Swine, 122

— with Kibler, H. H. and Ragsdale, A. C.

Growth and Development, With Special Reference to Domestic Animals:

LII. Resting Energy Metabolism and Ventilation Rate in Relation to Body Weight in Growing Jersey Cattle, With a Comparison to Basal Energy Metabolism in Growing Man, 120

LV. Resting Energy Metabolism and Ventilation Rate in Relation to Body Weight in Growing Holstein Cattle, 120

— with Kibler, H. H. and Trowbridge, E. A.

Growth and Development, With Special Reference to Domestic Animals:

LVIII. Resting Energy Metabolism and Pulmonary Ventilation in Growing Horses, 121

— with Nisbet, R., Riggs, J., and Kibler, H. H.

Growth and Development, With Special Reference to Domestic Animals:

XLVII. A Comparison of the Amounts and Energetic Efficiency

- cies of Milk Production in Rat and Dairy Cow, 117
- with Procter, Robert C.
- Growth and Development, With Special Reference to Domestic Animals:
- XXI. Relation Between Basal Metabolism and Body Weight in Man, Published Data, 110
- XXII. Relation Between Basal Metabolism and Body Weight in Laboratory Animals, Published Data, 110
- XXIII. Relation Between Basal Metabolism and Mature Body Weight in Different Species of Mammals and Birds, 110
- XXXI. Influence of the Plane of Nutrition on the Utilizability of Feeding Stuffs, Review of Literature and Graphic Analyses of Published Data on the Net-Energy and Specific Dynamic Action Problems, 112
- XXXV. Energetic Efficiency of Milk Production and the Influence of Body Weight Thereon, 113
- with Procter, R. C. and Ashworth, U. S.
- Growth and Development, With Special Reference to Domestic Animals:
- XXXIV. Basal Metabolism, Endogenous Nitrogen, Creatinine and Neutral Sulphur Excretions as Functions of Body Weight, 113
- with Ragsdale, Arthur C.
- Change of Form With Age in the Dairy Cow, 104
- Course of Skeletal Growth in the Dairy Cow, 105
- Equivalence of Age in Some Domestic Animals, 104
- Estimating Condition in Dairy Cattle, 84
- Estimating Profitableness of Dairy Cows, 84
- Evaluating the Efficiency of Dairy Cattle, 84
- Growth and Development, With Special Reference to Domestic Animals:
- XIV. (b) Prediction Charts for Growth of Cattle, 108
- XXX. The Partition of Digestible Nitrogen Intake Between Growth, Milk Secretion, and Urinary Excretion in Growing Dairy Cattle, 112
- Growth of the Dairy Cow, 104
- with Ragsdale, A. C., Trowbridge, E. A., Kempster, H. L., Hogan, A. G., and Mumford, F. B.
- Growth and Development, With Special Reference to Domestic Animals:
- XV. Energy and Nitrogen Metabolism During the First Year of Postnatal Life, 108
- with Riggs, J., Kaufman, K., and Herring, V. V.
- Growth and Development, With Special Reference to Domestic Animals:
- XLV. Energy-Metabolism Levels During Gestation, Lactation, and Post-Lactation Rest, 116-117
- with Sandburg, Mrs. C. and Asdell, S. A.
- Growth and Development, With Special Reference to Domestic Animals:
- XLIX. Growth, Milk Production, Energy Metabolism, and Energetic Efficiency of Milk Production in Goats, 117
- with Trowbridge, Edwin A.
- Efficiency of Horses, Men, and Motors, 85
- See also* Ashworth, Ural S.  
Hall, Warren C.  
Henderson, Earl Wilton  
Herring, Virgil V.  
Kibler, Hudson H.  
Phillips, Virgil W.  
Procter, Robert C.  
Ragsdale, Arthur C.  
Turner, Charles W.  
Washburn, Lloyd E.
- Brooks, Stratton Duluth**
- History of the Library, University of Missouri, Foreword to, 64
- Brown, E. Marion**
- Improve Permanent Pastures With Lespedeza, Phosphate, Lime, and Supplementary Grazing, 100
- Orchard Grass in Missouri, 137
- Restoration of Bluegrass Pastures in Missouri, 134
- Seasonal Variations in the Growth and Chemical Composition of Kentucky Bluegrass, 121
- Seeding Permanent Pastures, 98
- Smooth Bromegrass in Missouri, 98
- Some Effects of Temperature on the Growth and Chemical Composition of Certain Pasture Grasses, 118
- with Comfort, James E.

- Management of Bluegrass Pastures in Missouri, 96  
*See also* Etheridge, William C.
- Brown, Harry E.**  
 Lice and Mites of Livestock, 98  
 — with Vinson, C. G. and Haseman, L.  
 Protect Roasting Ears From Worms, 99  
*See also* Haseman, Leonard  
 Jenkins, Lee
- Brown, R. Q.**  
*See* Meyer, A. J.
- Brown, Rome G.**  
 Some Points on the Law of the Press, 53
- Brown, William George**  
 Chemistry, 66
- Bruner, F. H.**  
*See* Bayer, Leonard D.
- Bryan, C. G.**  
*See* Funk, Ernest M.
- Buckley, E. R.**  
 Providing for Future Generations, address, 149
- Buder, Eugene Hauck**  
 Interpleader in Missouri, 63
- Buffum, Mary Evaline**  
 Construction of Object Pronouns in the Works of Modern Spanish Writers, 8
- Burch, James W.**  
 Agricultural Extension Service, Missouri College of Agriculture, Annual Report: 1935, 133; 1936, 134; 1937, 135; 1938, 135  
 Building Soil, Security, and Self-reliance: Annual Report, 1940, Agricultural Extension Service, Missouri College of Agriculture, 136  
 Missouri Plan of Growing Thrifty Pigs, 130, 135, 136  
 Missouri Plan of Sheep Improvement, 131  
 Trend of Livestock and Feed Prices by Months, 127  
 Twenty-five Years of Extension Work in Missouri, With the Annual Report for 1939, 136  
 With Missouri Farmers in Wartime Production: Annual Report, 1942, College of Agriculture, Agricultural Extension Service, 139  
 — with Ewing, Thomas A.  
 Care and Hitches for Work Horses, 131, 136  
 — with Ewing, T. A. and Fleetwood, J. R.  
 4-H Colt Club, Revised, 147  
 — with Fleetwood, J. Ross  
 4-H Pig Club, 146  
 — with Martin, Theodore T.  
 4-H Pig Club, 146  
 Sow and Litter Club, 145  
*See also* Ewing, Thomas A.  
 Garlock, H. M.  
 Richards, Preston  
 Trowbridge, Edwin A.
- Burdick, Charles K.**  
 Estates by the Marital Right and by the Curtesy in Missouri, 57
- Burgess, John S., Jr.**  
*See* Howell, L. D.
- Burroughs, A. M.**  
 New Method of Making Engine Oil Emulsions, 78  
*See also* Talbert, Thomas J.
- Burt, Henry J.**  
 Analysis of Social Data, 109  
 Contacts in a Rural Community, 107  
 Population of Missouri: A General Survey of Its Sources, Changes, and Present Composition, 111  
 Rural Community Trends, 109: Second Report, 112  
*See also* Morgan, E. L.
- Butler, Joe B.**  
 County Highway Planning and Mapping in Missouri, 154  
 Descriptive Bibliography on Oil and Fluid Flow and Heat Transfer in Pipes, 157
- Caldwell, O. G.**  
 — with Marshall, C. Edmund  
 Study of Some Chemical and Physical Properties of the Clay Minerals Nontzonite, Attapulgit, and Saponite, 121
- Callaway, R. P.**  
*See* Hammar, Conrad H.
- Calvert, W. J.**  
 Prevention of Contagious Diseases in School Children, 65  
 Prevention of Typhoid Fever, 65
- Campbell, I. L.**  
 — with Turner, Charles W.  
 Relation of the Endocrine System to the Regulation of Calcium Metabolism, 121
- Campbell, John**  
*See* Brody, Samuel
- Campbell, Mabel V.**  
*See* Hill, Randall C.
- Canfield, Harold**  
 Brooding Chicks, 129, 132  
*See also* Winton, Berley
- Capps, Arlie G.**  
 — with Clements, H. M.



- Abstracts of Dissertations in Education Accepted by the University of Missouri, 45  
*See also* Carpenter, W. W.
- Cardinell, H. A.**  
 Condensed Information on Sprays and Spraying, 125  
 Observations on Winter Injury: II. An Aftermath of Winter Injury, 103  
 — with Page, E. M.  
 Melon Pest Control in Southeast Missouri, 125
- Carl, Flora L.**  
 Canning Fruits and Vegetables, 136  
 Canning Meat and Chicken, 131  
 Canning Meats, Fish, and Chicken, 135  
 Drying Fruits and Vegetables, 132  
 Missouri Farm Family Food Budget, 132  
 Pickles and Relishes, 136  
 Using a Pressure Cooker for Canning, 142  
 — with Chiles, Sara H.  
 4-H Food Clubs, Food Preservation Club: II. Canning and Preserving Fruits and Vegetables, 147  
 — with Clark, Marion W.  
 Homemade Driers for Fruit and Vegetables, 139  
 — with Foster, Ruth  
 Yeast Bread Made From Soft Wheat Flour, 134  
 — with Foster, R. and Church, H. L.  
 Food and Nutrition, Food Preservation: II, 147; III, 148  
 — with Foster, R., Hinote, J., and Church, H. L.  
 Food and Nutrition:  
 I. Breakfasts; II. Suppers and Picnic Lunches; 148  
 III. Dinner, 148  
 — with Heyle, Essie M.  
 Packing the School Lunch Box, 131  
 — with Hinote, Jane  
 Food and Nutrition Club:  
 Dinner, 147  
 Food Preservation, I, 146  
 School Lunch, 147  
 Supper and Breakfast, 147  
 — with Jopling, Letha Knight  
 Canning Meats, Fish, and Chicken, 136  
 Care and Use of a Pressure Cooker, 140  
 Chicken and Turkey for the Farm, 143  
 Drying Fruits and Vegetables, 139  
 Food for the Infant, 140  
 Food Habits for Children, 140  
 Freezer Lockers for Meat, Vegetables, and Fruit, 138  
 Fruit for the Family, 142  
 Home Canning Guide, 139  
 Meat for the Family, 142  
 Milk and Milk Products for the Family, 138  
 Salting and Brining Vegetables, 139  
 Soybeans in Family Meals, 140  
 Unusual Meats: How to Prepare and Serve Them, 139  
 Using Sugar, Honey, Sorghum, and Other Sirups, 138  
 Using Whole Grains in Family Meals, 139  
 Vegetables for the Family, 140  
 Vitamins on Your Dinner Plate, 138  
 — with Jopling, L. K., Hinote, J., Church, H. L., and Sontag, M.  
 Adventures in Cooking, 148  
 4-H Girl Learns to Can Food and Store: Preservation, I, 148  
 Suppers and Picnic Lunches, 148  
 — with Rohde, C. E.  
 Leaders' Suggestions in Producing and Using Eggs and Poultry, 143  
*See also* Anderson, J. W. C.  
 Ewing, Thomas A.  
 Jopling, Letha Knight  
 Martin, William R., Jr.
- Carpenter, W. W.**  
 Elementary School Building Program for Jefferson City, Missouri, 45  
 — with Capps, A. G. and Townsend, L. G.  
 Suggestions for a Code of Rules and Regulations for Missouri Boards of Education (two bulletins), 45
- Carr, Charles L.**  
 Missouri Appellate Practice and Procedure, 62  
 Modernized Civil Code of Missouri, 63
- Carter, C. E.**  
 Broom Corn Production, 141  
 Essentials of Alfalfa Production, 128  
 Grain Judging for Boys' and Girls' Clubs, 125  
 Safe and Profitable Uses of Sweet Clover, 129  
 Sudan Grass, 126  
 Sweet Clover in Missouri, 126, 128  
 — with Fleetwood, J. Ross  
 4-H Grain Sorghum Club, 147  
 — with Martin, Theodore T.  
 4-H Corn Club, I and II, 146  
 Grain Judging Club, 145  
*See also* Crosby, James E.

- Casey, John H.**  
Small Community Newspaper: Its Present-Day Possibilities, 54
- Casida, L. E.**  
— with McKenzie, Fred F.  
Oestrous Cycle of the Ewe: Histology of the Genital Tract, 110
- Chandler, W. H.**  
Combatting Orchard and Garden Enemies, 73  
Commercial Fertilizers for Strawberries, 74  
Co-operation Among Fruit Growers, 73  
Hardiness of Peach Buds, Blossoms, and Young Fruit as Influenced by the Care of the Orchard, 91  
Instructions for Spraying, 91  
Killing of Plant Tissue by Low Temperature, 101  
Sap Studies With Horticultural Plants, 101  
Winter Killing of Peach Buds as Influenced by Previous Treatment, 72
- Charters, W. W.**  
School Improvement Agencies: Suggestions for Superintendents and Principals, 47  
— with Miller, Edith  
Course of Study in Grammar Based Upon the Grammatical Errors of School Children of Kansas City, Missouri, 44  
*See also* Kunkel, O. L.
- Chasnoff, Joseph E.**  
Retail Advertising and the Newspaper, 52
- Childers, L. F.**  
Growing Alfalfa in Missouri, 122  
*See also* Haseman, Leonard
- Chiles, Sara H.**  
*See* Carl, Flora L.  
Heyle, Essie M.  
Stebbins, Mary E.  
White, Marion K.
- Chittenden, D. W.**  
— with Trowbridge, E. A. and Hogan, A. G.  
Growth Curves of Colts, 104  
*See also* Procter, Robert C.  
Trowbridge, Edwin A.
- Church, Helen L.**  
Posture, 148  
*See also* Bennett, Freida Mae  
Carl, Flora L.  
Fitzgerald, Madonna
- Clarahan, Mamie M.**  
Experimental Study of Methods of Teaching High School German, 44
- Clarenbach, Fred A.**  
Needed Local Government Reorganization in Ozark Land Use Adjustment Areas, 119
- Clark, Boyle G.**  
In the Public Interest, 61
- Clark, Fra**  
Built-in Bedroom Closets for the Farm Home, 134  
Working Heights for Kitchen Equipment, 127  
*See also* Wooley, John C.
- Clark, George L.**  
Equitable Relief Against Nuisances and Similar Wrongs in Missouri, 58  
Equitable Servitudes in Missouri, 58  
Real Party in Interest Statute in Missouri, 57  
Tort Liability for Negligence in Missouri:  
I. The Duty to Use Care, 57  
II. Legal or Proximate Cause;  
III. Contributory Misconduct of the Plaintiff; 57
- Clark, John W.**  
Analyses of Apples at Various Stages of Growth, Bordeaux Mixture for Grape Rot, Comparative Tests of Small Fruits and Potatoes, 70  
Covering Peach Trees to Protect the Fruit Buds, Spread of Pear Blight, Temperature and Rain Tables, Strawberry Tests, Potato Trials, Seedling Fruits, 70  
Experiments on Seed Germination, Pea Weevil, and Apples, 70  
Reports on Spraying for the Codling Moth, Apple Scab, and Black Rot of the Grape; Reports on Strawberries, Raspberries, Blackberries, Tomatoes, Peas, and Potatoes; List of New Fruits Received for Testing; 70
- Clark, Marion W.**  
Diversion Dikes and Channels for Saving Soil, 137  
Farm Ponds in Missouri, 134, 139  
Manual of Information on the Use and Care of the Farm Level, 142  
Terrace Outlets for Missouri, 134  
— with Ricketts, Ralph L.  
Home Equipment to Lay Out Guide Lines for Contour Farming, 138  
— with Tascher, W. R.  
Conserving Soil by Contour Farming, 134, 135  
— with Wooley, John C.  
Terracing, an Important Step in Erosion Control, 86

- Water Management for the Farm:  
Conserving Soil and Water for  
Efficient Production of Crops and  
Livestock, 137  
*See also* Carl, Flora L.  
Itschner, E. T.  
Jones, Mack M.  
McCormick, Leighton E.  
Martin, William R., Jr.  
Nagel, Werner O.  
Paulling, John R.  
Ricketts, Ralph L.  
Tascher, W. R.  
Wooley, John C.
- Clayton, Charles Yancey**  
Experiments From the Flotation  
Laboratory, 155  
*See also* Mann, Horace Tharp
- Clements, H. M.**  
*See* Capps, Arlie G.
- Cline, Jessie Alice**  
Use of Lard in Cookery, 83  
— with Godfrey, Rosalie S.  
Preparing and Cooking Beef, 95  
Unusual Meats, 95  
— with Trowbridge, E. A., Foster,  
M. T., and Fry, H. E.  
How Certain Methods of Cooking  
Affect the Quality and Palatabil-  
ity of Beef, 81  
*See also* Davis, Eva Mae  
Heyle, Essie M.
- Cloninger, William H.**  
*See* Regan, Maurice J.
- Clough, Robert S.**  
*See* Anderson, J. W. C.  
Ewing, Thomas A.  
Fleetwood, J. Ross  
Paulling, John R.
- Cochel, W. A.**  
*See* Meyer, A. J.
- Coghill, Will H.**  
— with DeVaney, Fred D.  
Conclusions From Experiments in  
Grinding, 158
- Cole, E. R.**  
*See* Meyer, A. J.
- Cole, Virginia Lee**  
Newspaper and Crime, 54
- Coleman, Otis T.**  
Home Grinding Limestone, 134  
Soil Treatment for Alfalfa, 134  
— with Itschner, E. T., Klemme,  
A. W., Tascher, W. R., Falloon,  
J., and Ferguson, J.  
Soil Conservation: II. Know Your  
Farm, 148  
— with Klemme, Arnold W.  
Liming Missouri Soils, 97  
Measuring Annual Changes in Soil  
Productivity, 142
- Soils and Soil Fertility for Alfalfa,  
139  
Using Limestone on Missouri Soils,  
135  
Wartime Recommendations on the  
Use of Commercial Fertilizer, 98  
— with Martin, Theodore T.  
4-H Soil Conservation Club: I. Know  
Your Soil, 147  
*See also* Klemme, Arnold W.  
Trotter, Ide P.
- Coles, Jessie V.**  
Consumer Demand in Missouri for  
Selected Articles of Clothing, 118  
Consumer Demand in Missouri for  
Selected Articles of Household  
Textiles, 118  
— with Hieser, Lucile  
Economic Status of 436 Families of  
Missouri Clerical Workers and  
Wage Earners, 119
- Collier, George W.**  
— with Johnson, Oliver R.  
Effects of Better Selection of Crops  
and Pastures on Farm Income in  
Missouri, 117
- Comfort, James E.**  
Filling the Silo With Corn or Sor-  
ghum, 98  
*See also* Brody, Samuel  
Brown, E. Marion
- Conard, Alfred F.**  
Words Which Will Create an Ease-  
ment, 62
- Connaway, John W.**  
Actinomycosis in Cattle, 77  
Hog Cholera and Immature Corn,  
76  
Immunization of Swine Against Hog  
Cholera, 91  
Paralysis of Hind Quarters in  
Swine, 125  
Practical Control of Infectious Abor-  
tion in Cattle, 78  
Prevention and Eradication of In-  
fectious Abortion in Cattle, 81  
Stomach Worms in Sheep, 125  
Texas Fever, 71  
— with Durant, A. J. and New-  
man, H. G.  
Infectious Abortion in Swine, 77  
— with Francis, M.  
Texas Fever: Immunizing Northern  
Breeding Cattle for the Southern  
Trade, 71  
— with Uren, Andrew W.  
Actinomycosis in Cattle, 84
- Conner, C. M.**  
Field Experiments With Wheat, 70  
*See also* Waters, H. J.

- Cooke, S. R. B.**  
*See* DeVaney, Fred D.
- Coolidge, Leslie H.**  
*See* Palmer, Leroy S.
- Cooley, R. J.**  
 — with Reid, William H. E.  
 Modern Trends in the Retail Ice Cream Store, 87  
*See also* Reid, William H. E.
- Copeland, D.**  
 — with Mann, H. T. and Roesler, H. A.  
 Metallurgical and Ore Dressing Laboratories of the Missouri School of Mines and Metallurgy, 155
- Cordry, Cletus D.**  
 Heavy Minerals in the Roubidoux and Other Sandstones of the Ozark Region, Missouri, 157
- Corner, W. A.**  
*See* Stokes, J. S.
- Coursault, J. H.**  
 Circular of Information to Accredited Junior Colleges, 44
- Cover, Sylvia**  
*See* Bisbey, Bertha
- Cowan, Donald R. G.**  
 Missouri Farm Prices and Purchasing Power, 105  
 — with Thomsen, Frederick L.  
 Missouri Farm Prices for 25 Years, 113
- Cowan, Eugene W.**  
*See* Miller, Merritt F.  
 Mumford, Frederick B.
- Cowsert, W. C.**  
*See* Ralston, N. P.
- Cox, G. H.**  
 — with Dake, Charles Laurence  
 Geologic Criteria for Determining the Structural Position of Sedimentary Beds, 155  
 — with Dean, R. S. and Gottschalk, V. H.  
 Studies on the Origin of Missouri Cherts and Zinc Ores, 156  
 — with Murray, E. P.  
 Some Relations Between the Composition of a Mineral and Its Physical Properties, 149
- Craven, Lucile**  
 Antony's Oriental Policy Until the Defeat of the Parthian Expedition, 12
- Crisler, Otto S.**  
*See* Elder, Cecil
- Criswell, Elijah Harry**  
 Lewis and Clark: Linguistic Pioneers, 10
- Crook, G. Hamilton**  
 Effect of Exercise on the Recovery of Motor Function in the Rat, 10
- Crosby, James E., Jr.**  
 — with Regan, M. J. and Carter, C. E.  
 Dairy Pastures, 131  
*See also* Ragsdale, Arthur C.  
 Regan, Maurice J.
- Crouse, Helen V.**  
 Translocations in Sciara: Their Bearing on Chromosome Behavior and Sex Determination, 122
- Cullison, James S.**  
 Stratigraphy of Some Lower Ordovician Formations of the Ozark Uplift, 158
- Cummings, Edith E.**  
 Eclipsing Binary TV Cassiopeiae, 43  
*See also* Baker, Robert H.
- Cummings, L. M.**  
*See* Forbes, C. R.
- Cunningham, J. W.**  
*See* Zirkle, R. E.
- Cunningham, Jesse**  
 List of References on Concentrating Ores by Flotation, 150
- Cunningham, Richard**  
*See* Brody, Samuel
- Curtis, Robert L.**  
 Planting Methods for Farm Woodlands, 139
- Curtis, Winterton C.**  
 Experimental Zoology, 66
- Dake, Charles Laurence**  
 Problem of the St. Peter Sandstone, 156  
 — with Bridge, Josiah  
 Subterranean Stream Piracy in the Ozarks, 156  
*See also* Cox, G. H.
- Daniels, Francis Potter**  
 Flora of Boulder, Colorado, and Vicinity, 12  
 Flora of Columbia, Missouri, and Vicinity: An Ecological and Systematic Study of a Local Flora, 12
- Davidson, William C.**  
 Sanitation and Sewage Disposal for Country Homes, 46
- Davila, Don Carlos G.**  
 Journalism of Chile, 54
- Davis, Bina Slaughter**  
*See* Heyle, Essie M.
- Davis, Eva Mae**  
 — with Cline, Jessie Alice  
 How to Make Good Bread From Missouri Soft Wheat Flour, 79  
 Study of the Use of Missouri Soft Wheat Flour in Making Light Bread, 105
- Davis, H. P.**  
*See* Brody, Samuel

- Davis, Laurel E.**  
Missouri Flour for Missouri Bread-making, 79
- Day, Thomas Gordon**  
— with Delano, P. H. and Schrenk, W. T.  
Quantitative Determination of Lead by the Electrolytic Deposition of Lead Dioxide, Parts I and II, 157
- Dean, Reginald S.**  
See Cox, G. H.
- Debuchi, Katsuji**  
Journalism and Diplomacy, addresses, 55
- Decker, C. W.**  
— with Arbuckle, W. S. and Reid, W. H. E.  
Alpha Hydrate and Beta Anhydride Lactose Crystals in Sandy Ice Cream, 118  
— with Reid, William H. E.  
Study of the Crystallization and Occurrence of Lactose Crystals in Several Milk Products, 122  
See also Reid, William H. E.
- Delano, Phillip H.**  
See Day, Thomas Gordon
- Demaree, F. H.**  
Factors Influencing the Yield of Oats, 91  
Reinforced Concrete Silo, 91  
Wheat Growing in Missouri, 91
- DeMoss, W. R.**  
See Turner, Charles W.
- DeVaney, Fred D.**  
— with Cooke, S. R. B.  
Laboratory Concentration of the Missouri Iron Ores of Iron Mountain and Pilot Knob, 157  
See also Coghill, Will H.
- Dickerson, John H.**  
Proposed Adjustments in the Farm Tenancy System in Missouri, 116
- Dickinson, Sherman**  
Conference on Adult Education, 1934, University of Missouri, 45  
Method for Selecting the Desirable Content for Courses in Departments of Vocational Agriculture Including a Group Test on Dairy Husbandry Information, 45  
Visual Education for Teachers of Agriculture, 44  
See also Knight, Ewart B.
- Doane, D. H.**  
Annual Report of State Leader of Farm Advisers, 143  
County Farm Adviser Plan, 92  
Missouri Farm Advisers: Plan of Co-operation Between University of Missouri, College of Agriculture, United States Department of Agriculture, and Missouri Counties, 92  
School Exhibits and Contests, 143  
See also Miller, Merritt F.
- Dobbs, Ella Victoria**  
— with Zeitz, Juliaetta  
Handwork in Grades One to Six (two bulletins), 48
- Dodd, C. M.**  
See Herold, Paul G.  
Zvanut, F. J.
- Doll, E. R.**  
See Durant, Adrian J.
- Dolley, D. H.**  
On Resuscitation, 65
- Donegheue, R. C.**  
— with Krusekopf, H. H., McCool, M. M., and Rusk, H. P.  
Soils of Sullivan County, Missouri, 73  
— with Tillman, B. W.  
Soils of Audrain County, Missouri, 73
- Doolittle, Nettie-Alice**  
See Martin, Charles William
- Dorrance, Ward Allison**  
Survival of French in the Old District of Sainte Genevieve, 9
- Dougherty, John H.**  
Check List of Student Serial Publications, 64
- Douglass, T. R.**  
See Hutchison, C. B.  
Miller, Merritt F.
- Dover, M. V.**  
Tests on Lubricating Oils, 47
- Drew, R. J.**  
See Reid, William H. E.
- Drew, William B.**  
Revegetation of Abandoned Cropland in the Cedar Creek Area, Boone and Callaway Counties, Missouri, 120  
— with Helm, Charles A.  
Representative Missouri Weeds and Their Control, 87
- Drouet, Francis**  
List of Algae From Columbia, Missouri, 8
- Duley, F. L.**  
Controlling Surface Erosion of Farm Lands, 78  
Handling Barnyard Manure, 124  
Handling Farm Manure, 76  
— with Miller, Merritt F.  
Effect of a Varying Supply of Nutrients Upon the Character and Composition of the Maize Plant at Different Periods of Growth, 103  
Erosion and Surface Runoff Under Different Soil Conditions, 104  
Soils Experiment Fields of Missouri, 79

- See also* Lehmann, E. W.  
Miller, Merritt F.
- Duncan, Finis Omer**  
Extension of the Theory of Envelopes, 7
- Dunlap, Frederick**  
Growth of Oak in the Ozarks, 103
- Dunlap, Howard Leroy**  
— with Kershner, K. K. and Smiley, V. X.  
Carbonization of Missouri Cannel Coals, 156
- Dunshee, Marion E.**  
Some Substantial Milk Dishes, 128  
*See also* White, Marion K.
- Durant, Adrian J.**  
Blackhead in Turkeys—Surgical Control by Cecal Abligation, 108  
Coccidiosis in Chickens and Other Birds, 85  
Coccidiosis in Fowls, 81  
Common Internal Parasites of Poultry, 128  
Common Parasitic Worms of Poultry, 128  
Leukemia in Fowls, 81  
Limberneck in Fowls, 97  
Mold Diseases of Chickens and Turkeys, 89  
Roup in Fowls, 77  
Tuberculosis of Poultry, 84  
White Diarrhea in Chickens, 125  
— with Doll, E. R.  
Ulcerative Enteritis in Quail, 119  
— with McDougale, Harold C.  
Coccidiosis in Chickens and Other Birds, 86  
Studies on the Origin and Transmission of Fowl Paralysis by Blood Inoculation, 118  
*See also* Connaway, John W.  
Hunter, Jesse E.  
Knight, D. R.  
McDougale, Harold C.
- Dye, C. Sherman**  
Development of the Doctrine of Erie Railroad v. Tompkins, 62
- Dyer, Albert J.**  
Winter Care of Ewes, 136  
— with Weaver, Luther A.  
Fattening Early and Late Lambs, 87  
*See also* Trowbridge, Edwin A.
- Eads, George W.**  
— with Huse, N. A. and Linn, M. P.  
Problems of Advertising, Journalism Week Addresses, 52
- Easley, G. T.**  
*See* Lasley, John F.
- Eastin, Robert S.**  
Priorities Between Mortgages and Mechanics' Liens, 60
- Ebmeyer, G. E.**  
War Records, 150
- Eckhardt, Willard L.**  
Destructibility of Contingent Remainders in Missouri, 62
- Eckles, C. H.**  
Department of Dairy Husbandry.  
I. A Test of Tin Can Separators;  
II. A Test of a Fly Repellant; 72  
Digestion Trial With Two Jersey Cows on Full Ration and on Maintenance, 100  
Estimating Silo Capacities and Silage Weights, 93  
Feeding for Milk Production, 91  
Feeding the Dairy Cow, 72, 91  
Influence of Fatness of Cow at Parturition on Per Cent of Fat in Milk, 73  
Keeping Records of Dairy Cows, 92  
Legumes, Sudan Grass, and Cereal Crops for Silage, 76  
Maintenance Trials With Five Jersey Cows, 100  
Normal Growth of Dairy Cattle, 102  
Nutrients Required for Milk Production, 101  
Nutrients Required to Develop the Bovine Fetus, 102  
Raising Calves With Skim Milk, 72  
Ration and Age of Calving as Factors Influencing the Growth and Dairy Qualities of Cows, 75  
Selection and Management of the Dairy Bull, 124  
Shock Corn for Silage, 92  
Silo and Its Use, 75  
Silo for Missouri Farmers, 73  
Study of the Birth Weight of Calves, 102  
Variations in Cream Tests, 91  
Winter Rations for Dairy Heifers, 76  
— with Oshel, O. I. and Magruder, D. M.  
Silage Investigations: Normal Temperatures and Some Factors Influencing the Quality of Silage, 102  
— with Palmer, Leroy S.  
Effects of Feeding Cottonseed Products on the Composition and Properties of Butter: Influence of the Character of the Ration and Quantity of Cottonseed Products, 102  
Influence of Plane of Nutrition of the Cow Upon the Composition

- and Properties of Milk and Butter Fat:  
 Influence of Overfeeding, 102  
 Influence of Underfeeding, 102  
 — with Reed, O. E.  
 Study of the Cause of Wide Variation in Milk Production by Dairy Cows, 100  
 — with Reed, O. E. and Fitch, J. B.  
 Capacities of Silos and Weights of Silage, 76  
 — with Swett, W. W.  
 Some Factors Influencing the Rate of Growth and the Size of Dairy Heifers at Maturity, 102  
 — with Wayman, H. S.  
 Factors Affecting the Per Cent of Fat in Cream From Farm Separators, 73  
 — with White, G. C.  
 Raising Calves on Skim Milk, 91  
*See also* Palmer, Leroy S.  
 Swett, W. W.  
 Waters, H. J.
- Eckles, W. C.**  
*See* Reid, William H. E.
- Edinger, A. T.**  
 Physical Composition of a Lean, a Half Fat, and a Fat Beef Carcass and the Relative Cost of the Nutrients Contained in Each, 105  
*See also* Hogan, Albert G.
- Edom, Clifton C.**  
 First Annual Fifty-Print Exhibition of News and Feature Pictures, 57
- Elcher, D. E.**  
*See* Bierbaum, E. A.  
 Faurot, F. W.
- Elder, Cecil**  
 Control of Bang's Disease in Missouri, 85  
 Internal Parasites of Sheep, 88  
 — with Crisler, Otto S.  
 Hog Cholera, 89  
 — with Uren, Andrew W.  
 Pregnancy Disease in Sheep, 83  
 Pregnancy Disease of Sheep, 86
- Elijah, H. D.**  
 — with Turner, Charles W.  
 Weight and Thyrotropic Hormone Content of the Anterior Pituitary of Swine, 121
- Ellard, Roscoe B.**  
 "For Distinguished Service in Journalism": Missouri Honor Awards for 1937, 56  
 In Memoriam: Walter Williams, 1864-1935, 56
- Elliff, Joseph Doliver**  
 — with Jones, Abner  
 Study of the Rural Schools of Saline County, Missouri, 44
- Elliott, Ada McDaniel**  
*See* Severance, Henry Ormal
- Ellison, Samuel**  
 — with Graves, Roy W., Jr.  
 Lower Pennsylvanian (Dimple Limestone) Conodonts of the Marathon Region, Texas, 158  
*See also* Graves, Roy W., Jr.
- Ellwood, Charles A.**  
 Public Relief and Private Charity in England, 11
- Elting, Erwin C.**  
*See* Brody, Samuel
- Elwang, William Wilson**  
 Social Function of Religious Belief, 12
- Ely, Ben, Jr.**  
 Can an Estate Tail Be Docked During the Life of the First Taker? 60  
 Meaning of "Hootch, Moonshine, Corn Whiskey" in the Missouri Prohibition Law, 59
- Ely, Ray E.**  
 — with Herman, H. A. and Winchester, C. F.  
 Studies of Respiration Rate of Dairy Bull Spermatozoa, 121
- Emberson, Frances Guthrie**  
 Mark Twain's Vocabulary: A General Survey, 9  
*See also* Ramsay, Robert L.
- Emberson, R. H.**  
 Boys' and Girls' Club Work, 144  
 Consolidation of Schools in Missouri, 47  
 Exhibits and Contests for Boys' and Girls' Clubs, 123  
 Rural Education: The Horse, 17, 65  
 Rural Education: The Soil, 17, 65  
 Study of Cattle, 65  
 — with Kirkpatrick, Roy T.  
 Organization of Corn Clubs and Corn Club Record Book, 125  
 — with Reavis, G. W.  
 Boys' and Girls' Clubs, 143  
 — with Reavis, G. W. and Root, A. D.  
 Boys' and Girls' Clubs, 143  
*See also* Martin, Theodore T.  
 Miller, Merritt F.
- Emerson, Frederick V.**  
 Geography of Missouri, 43
- Emperor, John Bernard**  
 Catullan Influence in English Lyric Poetry, circa 1600-1650, 7
- Enlow, Maxine**  
 Missouri Alumni in Journalism: A Directory of Graduates and Former Students, Eighth Edition, 56
- Enslinger, J. Douglas**  
*See* Morgan, E. L.  
 Sneed, Melvin W.

**Etheridge, William C.**

Characters Connected With the  
Yield of the Corn Plant, 103

Good Use of Farm Land in Mis-  
souri, 133

Growing Field Beans, 141

Management of Bluegrass Pastures,  
124

Simple Method for Controlling  
Loose Smut in Wheat, 125

Way to Grow and Use Sudan Grass,  
123

Way to Grow Soybeans, 123, 124

— with Helm, Charles A.

Annual Report of the Northeast  
Missouri Crops Experiment Field,  
1924, 94

Better Methods for Growing Alfalfa,  
83

Corn and Soybeans, 78

Cotton Production in Missouri, 126

Growing Good Crops of Oats in  
Missouri, 84, 86

Korean Lespedeza in Rotations of  
Crops and Pastures, 84

Productive Methods for Soybeans in  
Missouri, 77

Sweet Clover in Missouri, 133

Wheat in Missouri, 86

— with Helm, C. A. and Brown,  
E. M.

All-Year Pasture System for Mis-  
souri (two bulletins), 96

Winter Barley, a New Factor in  
Missouri Agriculture, 84

— with Helm, C. A. and King,  
B. M.

Classification of Soybeans, 108

Korean Lespedeza, 131

Korean Lespedeza in Missouri, 81

See also Foster, M. T.

Hackedorn, Howard

Helm, Charles A.

Miller, Merritt F.

**Etheridge, Mrs. William C.**

See Hevle, Essie M.

**Etz, W. F.**

— with Mann, L. B.

Raising Calves for Baby Beef or  
Breeding Purposes, 124

**Eubank, L. A.**

See Neale, M. G.

**Evans, A. R.**

Cotton Seed Selection for Southeast  
Missouri, 92

See also Hutchison, C. B.

**Evans, Evan A.**

Dissenting Opinion—Its Use and  
Abuse, 61

Fifty Years of the United States Cir-  
cuit Court of Appeals, 63

**Evans, Orrin B.**

Jurisdiction to Divorce: A Study in  
Stare Decisis, 63

Lien of a Federal Judgment, 62

Problems in the Enforcement of  
Federal Judgments, 62

**Ewing, Thomas A.**

Suggestions for Leaders in Meat  
Cutting Demonstrations, 142

— with Burch, James W.

Missouri Plan of Sheep Improve-  
ment, 133, 136

— with Carl, Flora L.

Cutting, Curing, and Canning Pork  
and Beef, (two bulletins) 132, 134

Lamb and Mutton on the Farm, 136

— with Foster, M. T.

Castrating and Docking Lambs, 133

— with Itschner, E. T.

Baby Beef Production, 147

Sheep Production, 137, 147

— with Itschner, E. T. and Clough,  
R. S.

Beef Production, 137

See also Burch, James W.

Trowbridge, Edwin A.

**Eyster, William H.**

Scarred Endosperm and Size Inher-  
itance in Kernels of Maize, 103

**Fairchild, Arthur H. R.**

Shakespeare and the Arts of Design  
(Architecture, Sculpture, and  
Painting), 9

Shakespeare and the Tragic Theme,  
11

Teaching of Poetry in the High  
School, 44

**Falloon, John**

See Coleman, Otis T.

**Fankhanel, W. R.**

See Hart, W. J.

Thomsen, Frederick L.

**Fathchild, Irvin H.**

Static and Dynamic Concepts of the  
Law of Unfair Competition, 61

Statutory Unfair Competition, 60

**Faurot, Don**

— with Talbert, Thomas J.

Comparison of Four Systems of  
Pruning Grapes, 107

**Faurot, F. W.**

— with Eicher, D. E., Wade, O.,  
and Boles, A. P.

Calyx Spray for Apples, Pears, and  
Quinces, 127

Cluster-Bud Spray for Apples, Mak-  
ing and Applying, 127

Fourth and Fifth Summer Sprays  
for Apples, Directions for Making  
and Applying, 127

Spraying for the Second Brood of  
Codling Moth, 127

Spraying Grapes in Missouri, 127



- Third Summer Spray for Apples,  
Directions for Making and Applying, 127
- Favor, E. H.**  
Fungicides, Insecticides, and Spray  
Calendar, 91
- Fenton, F. C.**  
Farm Buildings for Missouri, 123  
Water Systems for Farm Homes,  
124  
*See also* Lehmann, E. W.
- Ferguson, Carl E.**  
— with Albrecht, William A.  
Nitrogen Fixation and Soil Fertility  
Exhaustion by Soybeans Under  
Different Levels of Potassium, 119
- Ferguson, J. A.**  
Growing a Woodlot From Seed, 91  
How to Prolong the Life of Fence  
Posts, 91
- Ferguson, John**  
*See* Coleman, Otis T.
- Fess, Gilbert Malcolm**  
American Revolution in Creative  
French Literature (1775-1937), 10
- Fessenden, Edwin Allan**  
— with Haney, Jiles William  
Heat Transmission Thru Boiler  
Tubes, 46
- Finkey, Josef**  
Scientific Fundamentals of Gravity  
Concentration, 157
- Finlay, James Ralph**  
Mining and Civilization, address, 149
- Finley, Lester E.**  
Costs of Installing and Operating  
a Small One-Man Photoengraving  
Plant, 56  
Measurement of Reading in Five  
Weekly Newspapers, 56  
Measurement of Reading in Weekly  
Newspapers, Second Series, 56
- Fintel, Ernest A.**  
Methods of Objecting to Pleadings  
and of Obtaining Summary Judgment, 62
- Fitch, J. B.**  
*See* Eckles, C. H.
- Fitzgerald, Madonna**  
Bringing Out the Natural Beauty  
of Wooden Furniture, 139  
Homemade Rugs, 135  
— with Church, Helen L.  
Home Furnishings:  
I. Accessories for the Girl's Room,  
148  
II. Units for the Bedroom, 148  
— with Woodruff, Louise  
Conservation of Home Equipment,  
143
- Homemade Storage Facilities for  
the Home, 140  
Small Repairs Around the House,  
143  
Upholstering at Home, 140  
*See also* Rocheford, Julia M.
- Fizzell, Robert B.**  
Payment of Debt to Foreign Representatives or Heirs, 58
- Fleetwood, J. Ross**  
Field Bindweed and Methods of Control, 135  
Grain Sorghums for Grain Production, 135  
Soybeans and Winter Barley in One-Year Rotation, 136, 142  
Spring Crops for Land on Which Fall Seedings Failed, 137  
— with Clough, Robert S.  
Corn Production, 148  
*See also* Burch, James W.  
Carter, C. E.
- Fleshman, C. L.**  
*See* Reid, William H. E.
- Fletcher, Peter**  
— with Martin, Theodore T.  
Farm Forestry: I. Forest Appreciation, Revised, 147  
4-H Farm Forestry Club: I. Forest Appreciation, 147
- Flowers, Alan E.**  
Friction and Lubrication Testing Apparatus, 46
- Floyd, Bayard F.**  
Some Common Fungous Diseases and Their Treatment, 90
- Foard, W. E.**  
*See* Johnson, Oliver R.
- Forbes, C. R.**  
— with Cummings, L. M.  
Comparative Tests of Piston-Drill Bits, 155
- Forbes, E. B.**  
Grain Rations for Dry Lot Hog Feeding, 72  
Specific Effects of Rations on the Development of Swine, 72  
Supplements to Corn for Fattening Hogs, 72
- Foster, J. Rhoads**  
Public Utility Franchise in Missouri: The Relation of the Short-Term Franchise as an Instrument of Public Utility Regulation to the Issue of Centralization Versus Decentralization in State Administration, 9
- Foster, M. T.**  
Carcass Comparisons of Mature and Immature Steers, 107  
Castrating and Docking Lambs, 129

- with Etheridge, William C.  
Fattening Lambs on Forage, 129
- with Miller, J. C.  
Effects of Management and Sex on  
Carcasses of Yearling Cattle, 111  
*See also* Cline, Jessie Alice  
Ewing, Thomas A.
- Foster, Ruth**  
*See* Carl, Flora L.
- Fox, Charles P.**  
Sugar Beets, 70
- Fox, H. D.**  
— with Trowbridge, E. A. and Ho-  
gan, A. G.  
Growth Curves of Sheep, 104  
*See also* Hogan, Albert G.  
Trowbridge, Edwin A.
- Frame, Benjamin H.**  
Cost of Producing Cotton in South-  
east Missouri, 1941, 89  
Costs of Crop Production in Mis-  
souri, 1921, 77  
Horse and Mule Outlook, 95  
Influence of Yield on Costs and In-  
come in Agricultural Production,  
81  
Labor Required and Its Distribution  
in Missouri Farm Crop Produc-  
tion, 122  
Reducing the Cost of Producing  
Dairy and Poultry Products in  
Missouri, 98  
*See also* Johnson, Oliver R.  
Miller, Merritt F.  
Ragsdale, Arthur C.  
Wood, Diller C.
- Francis, David Rowland**  
Parker Memorial Address, Fortieth  
Anniversary of the School of  
Mines and Metallurgy, 149
- Francis, M.**  
*See* Connaway, John W.
- Frank, A. H.**  
*See* Turner, Charles W.
- Frankenbach, R. F.**  
*See* Brody, Samuel
- Frear, D. W.**  
Essentials of Wheat Production in  
Missouri, 127  
Separating Cracked and Whole Soy-  
beans, 141  
— with Fyfer, Mrs. J. K.  
Corn Club, I and II, 145
- Freedman, Walter**  
Liability in Tort of Municipal Cor-  
porations in Missouri, 61
- French, Herbert E.**  
— with Humphrey, H. O.  
Experiments on Sunflower Seed Oil,  
47
- Freudenberger, Joseph N.**  
Advice to Young Investors, 31
- Froeschner, Elsie Herbold**  
Representative Missouri Weeds and  
Their Control, Illustrations for, 87
- Fry, Hazel Elinor**  
*See* Cline, Jessie Alice
- Frye, Elroy E.**  
*See* Neale, M. G.
- Fulton, Charles H.**  
Mining and Metallurgical Education:  
A Collection of Papers on the  
Subject, Including the Discussion  
Presented at the Meeting of the  
Committee on Education and Pub-  
lic Service of the American Min-  
ing Congress, Chicago, October  
1921, 151  
What Should a Present Day Metal-  
lurgical Education Comprise? ad-  
dress, 150
- Funk, Ernest M.**  
Cooling of Eggs, 84  
Effects of Temperature and Humid-  
ity on the Keeping Quality of Shell  
Eggs, 122  
Factors Influencing Hatchability in  
the Domestic Fowl, 83  
Factors Influencing Production of  
Clean Eggs, 85  
Improving the Keeping Quality and  
the Market Value of Eggs by  
Proper Cleaning, 85  
Improving the Keeping Quality of  
Eggs by Cleaning With Sodium  
Hydroxide, 116  
Pasteurization of Shell Eggs, 121  
Poultry Housing Conditions in Mis-  
souri, 87  
Producing Hatching Eggs, 132  
Producing Quality Chicks, 131  
Protein Content of Concentrates for  
Turkeys, 89  
Stabilizing Quality in Shell Eggs,  
121  
— with Hamilton, J. C. and Kemp-  
ster, H. L.  
Game Bird Investigations: Quail and  
Chukar Partridges, 87  
— with Kempster, Harry L.  
Egg Weight in the Domestic Fowl,  
83  
Use of Vegetable Protein Concen-  
trates for Raising Turkeys, 86  
— with Kempster, H. L. and  
Bryan, C. G.  
Value of Dried Skim Milk for Fat-  
tening Poultry, 82  
*See also* Brody, Samuel  
Kempster, Harry L.  
Williams, I. L.  
Winton, Berley

- Furnish, W. M.**  
*See* Branson, Edwin B.
- Fyfer, Mrs. J. K.**  
*See* Frear, D. W.  
 Garlock, H. M.  
 Heyle, Essie M.  
 Page, E. M.  
 Townsley, T. S.
- Gager, C. Stuart**  
 Botany, 66
- Garcia, John A.**  
 Personality, Opportunity and the  
 Mining Engineer, address, 151
- Gardner, J. S.**  
 Farm Garden, 122
- Gardner, V. R.**  
 Bud Selection With Special Refer-  
 ence to the Apple and Strawberry,  
 102  
 Pruning the Apple, 93  
 Studies in the Nutrition of the  
 Strawberry: Nutrition as Related  
 to Yield, 103
- Gardner, W. U.**  
 — with Turner, Charles W.  
 Function, Assay, and Preparation of  
 Galactin, a Lactation Stimulating  
 Hormone of the Anterior Pitu-  
 itary, and An Investigation of the  
 Factors Responsible for the Con-  
 trol of Normal Lactation, 112  
*See also* Turner, Charles W.
- Garlock, H. M.**  
 Cottonseed Meal, Cold-Pressed Cake,  
 and Linseed-Oil Meal in Rations  
 for Fattening Cattle, 95  
 Factors in Beef Production, 128  
 Fattening Calves for Market, 127  
 — with Burch, James W.  
 Producing and Feeding Beef Calves,  
 128  
 — with Fyfer, Mrs. J. K.  
 Baby Beef Club, 145  
 — with Martin, Theodore T.  
 4-H Baby Beef Club, 146
- Garrison, Earl R.**  
 — with Turner, Charles W.  
 Effect of Udder Irrigation and Milk-  
 ing Interval on Milk Secretion,  
 114  
*See also* Ragsdale, Arthur C.  
 Reid, William H. E.  
 Turner, Charles W.
- Garrison, Milton**  
*See* Bradshaw, William Leonard
- George, John J.**  
 Motor Carrier Regulation in Mis-  
 souri, 59-60
- Gerald, J. Edward**  
 Statutes of the State of Missouri  
 Relating to Notice by Publication  
 in Newspapers, 55
- Gifford, Warren**  
 Mode of Inheritance of Yearly But-  
 terfat Production: An Analysis  
 of the Progeny Performance of  
 Holstein-Friesian Sires, 108  
 — with Turner, Charles W.  
 Mode of Inheritance of Yearly But-  
 terfat Production: An Analysis of  
 the Progeny Performance of Ayr-  
 shire Sires and Dams, 107  
*See also* Ragsdale, Arthur C.  
 Regan, Maurice J.
- Giles, G. Wallace**  
 Drawbar Dynamometer and Its Use  
 in Soil Tillage Experiments, 114
- Gilman, Wilbur Elwyn**  
 Milton's Rhetoric: Studies in His  
 Defense of Liberty, 10
- Gingrich, Newell S.**  
*See* Vinson, C. G.
- Ginsburg, Claire E.**  
 Newspaperman's Library, Revised  
 Edition, 53
- Gist, Noel P.**  
 Secret Societies: A Cultural Study  
 of Fraternalism in the United  
 States, 10  
 — with Pihlblad, C. T. and Greg-  
 ory, C. L.  
 Selective Factors in Migration and  
 Occupation: A Study of Social Se-  
 lection in Rural Missouri, 10
- Glass, H. Bentley**  
 Study of Factors Influencing Chro-  
 mosomal Segregation in Trans-  
 locations of *Drosophila Melano-*  
*gaster*, 114
- Godfrey, Rosalie S.**  
*See* Cline, Jessie Alice
- Golden, Howard E.**  
 Some Economic Aspects of the  
 Farm Poultry Enterprise, 114
- Goldstein, Milton I.**  
 Contempt of Court and the Press in  
 Missouri, 63
- Gomez, E. T.**  
 — with Turner, Charles W.  
 Hypophysectomy and Replacement  
 Therapy in Relation to the Growth  
 and Secretory Activity of the  
 Mammary Gland, 115  
*See also* Graham, W. R., Jr.  
 Hill, R. T.  
 Murneek, Andrew E.  
 Turner, Charles W.
- Goodman, L. A.**  
*See* Whitten, J. C.

- Gottschalk, V. H.**  
*See* Cox, G. H.
- Graham, Ellis R.**  
 Magnesium as a Factor in Nitrogen Fixation by Soybeans, 117
- Graham, W. R., Jr.**  
 — with Turner, C. W. and Gomez, E. T.  
 Method for Obtaining Arterial Blood From the Goat, 115  
*See also* Herman, Harry A.
- Grantham, A. E.**  
 Cowpeas, 72
- Graves, Roy W., Jr.**  
 — with Ellison, Samuel  
 Ordovician Conodonts of the Marathon Basin, Texas, 158  
*See also* Ellison, Samuel
- Graves, Waller W.**  
 Certiorari as Used by the Supreme Court in the Interest of Harmony of Opinion and Uniformity of the Law, 58
- Grawe, Oliver R.**  
 Mineral Thermometer, 158
- Green, Milton D.**  
 Judicial Tests of Mental Incompetency, 62
- Green, R. M.**  
 Cost and Price Tendencies on the Farm, 93  
 — with Wood, Diller C.  
 How to Keep Farm Accounts, 93  
 — with Wood, D. C. and Ragsdale, A. C.  
 Milk Production Costs and Milk Prices, 76  
*See also* Johnson, Oliver R.
- Greene, Charles W.**  
 Alumni of the School of Medicine: A Directory of the Graduates and Former Students, First and Second Editions, 65
- Gregory, Cecil L.**  
*See* Gist, Noel P.  
 Lively, Charles E.  
 Wilkening, Eugene A.
- Griffith, Ira S.**  
 Technical Manual Arts for General Educational Purposes, 48
- Griffitts, M. H.**  
 Scientific Fundamentals of Gravity Concentration, Translation of, 157
- Griswold, D. J.**  
 — with Trowbridge, P. F., Hogan, A. G., and Haigh, L. D.  
 Effect of Gestation and Lactation Upon the Growth and Composition of Swine, 107
- Gromer, S. D.**  
 What to Produce in 1926, 128  
*See also* Brannen, C. O.
- Guengerich, H. W.**  
 — with Wood, Diller C.  
 Cost of Caring for a Bearing Apple Orchard, 130  
 Cost of Growing an Apple Tree to Bearing Age, 129
- Guerrant, N. B.**  
*See* Hogan, Albert G.
- Gumaer, P. W.**  
 Economics of Electric Cooking, 46
- Gwatkin, William Emmett, Jr.**  
 Cappadocia as a Roman Procuratorial Province, 8
- Haag, Herman M.**  
 Missouri Farm Prices Since 1910, 118  
 Operating Expenses of Co-operative Exchanges and Elevators, 86  
 Using Feed Price Information to Reduce Production Costs, 98  
 Variations in Production per Farm and per Worker in Missouri, 1939, 143  
 — with St. John, Norman  
 Seasonal Variation and Economy of Basic Feeds, 1924-1940, 87  
 — with Schweiter, L. H.  
 Market Organization and Costs in the St. Louis Wholesale Fruit and Vegetable Market, 119  
*See also* Mercer, Ralph E.  
 Ragsdale, Arthur C.  
 Schiffman, Edward G.
- Hackedorn, Howard**  
 Advantages From Use of Pure Bred Ram, 92  
 Docking and Castrating Lambs, 92  
 Rations for Breeding Ewes, 74  
 Rye and Blue Grass Pastures, With and Without Grain, for Ewes  
 Suckling Lambs, 92  
 — with Etheridge, William C.  
 Fattening Lambs on Forage, 124  
*See also* Mumford, Frederick B.
- Hackleman, J. C.**  
 Crops for Overflowed Lands, 123  
 Handling the Alfalfa Crop, 124  
 How to Test Seed Corn, 124  
*See also* Hutchison, C. B.  
 Miller, Merritt F.
- Hadley, Herbert S.**  
 Legal Education and American Law Institute, 59
- Haigh, Leonard D.**  
 Registration, Labeling, Inspection, and Sale of Commercial Fertilizers, 1929, 81

- Testing Fertilizers for Missouri Farmers: 1925, 79; 1926, 80; 1927, 80; 1928, 80
- Testing Fertilizers, Spring: 1926, 95; 1928, 80
- with Albrecht, William A.  
Buying Fertilizers Wisely, 98  
Wartime Fertilizer Information (two bulletins), 89
- with Hogan, Albert G.  
Composition of Corn Fodder Grown in Drouth Years, 85
- with Miller, Merritt F.  
Testing Fertilizers, Spring 1927, 80
- with Moulton, C. R. and Trowbridge, P. F.  
Composition of the Bovine at Birth, 102
- See also* Griswold, D. J.  
Miller, Merritt F.  
Moulton, C. Robert  
Mumford, Frederick B.  
Ritchie, Walter S.  
Trowbridge, P. F.
- Hales, M. W.**  
*See* Reid, William H. E.
- Hall, Frederic Aldin**  
Shifting Responsibility, address, 151
- Hall, Nathan S.**  
*See* Bayer, Leonard D.
- Hall, Warren C.**  
— with Brody, Samuel  
Growth and Development, With Special Reference to Domestic Animals:  
XXVI. The Energy Increment of Standing Over Lying and the Cost of Getting Up and Lying Down in Growing Ruminants (Cattle and Sheep): Comparison of Pulse Rate, Respiration Rate, Tidal Air, and Minute Volume of Pulmonary Ventilation During Lying and Standing, 111  
XXXII. The Energy Cost of Horizontal Walking in Cattle and Horses of Various Ages and Body Weights, 113  
*See also* Brody, Samuel
- Hamilton, C. C.**  
Prevent Insect Damage, 124
- Hamilton, James C.**  
*See* Funk, Ernest M.
- Hamilton, Milo Fowler**  
Individual Rights Arising From Collective Labor Contracts, 61
- Hamilton, Theodore Ely**  
Cyclic Relations of the Chanson De Willame, 11
- Hammar, Conrad H.**  
Accuracy and Flexibility of Rural Real Estate Assessment in Missouri, 110  
Factors Affecting Farm Land Values in Missouri From an Appraisal Viewpoint, 114  
Land Tax Delinquency in Missouri, 113  
Missouri Farm Real Estate Situation for 1927-1930, 109  
Missouri Farmers' Tax Position, 81
- with Barton, Glen T.  
Farmer and the Cost of Local Rural Government in Missouri, 85
- with Callaway, R. P.  
Missouri Farm Real Estate Situation for 1930-1931, 110
- with Krusekopf, Henry H.  
Proceedings of the First Missouri Conference on Land Utilization, College of Agriculture, 1933, 82
- with Moore, R. K.  
Missouri Farm Real Estate Situation for 1931-1932, 112
- with Roth, W. J. and Johnson, O. R.  
Types of Farming in Missouri, 117
- with Westveld, R. H.  
Forest Restoration in Missouri, 85
- with Wood, Diller C.  
Safeguards in Financing the Purchase of a Farm, 137  
*See also* Meyers, A. M., Jr.  
Snipe, J. Roger
- Hampton, Herbert E.**  
— with Albrecht, William A.  
Nitrogen Fixation, Composition and Growth of Soybeans in Relation to Variable Amounts of Potassium and Calcium, 122
- Haney, Jiles William**  
*See* Fessenden, Edwin Allan
- Hanley, Herbert Russell**  
Electrical Precipitation as Applied to Gas Streams, 157  
Hot Dip Galvanizing: A Review of the Process, 158  
Sulfation in Roasting Zinc Sulfide Concentrates, 158
- Hanna, John**  
New Frazier-Lemke Act, 60
- Harding, Arthur Leon**  
Joseph Henry Beale: Pioneer, 61  
Williston's Fundamental Conceptions, 61
- Hargrove, W. H.**  
Extension Schools in Agriculture, 144
- Harman, K. G.**  
Four Essentials of Wheat Production, 129  
Selecting Seed Corn, 127, 129

- with Martin, Theodore T.  
4-H Soybean Club, 146
- Harmon, E. M.**  
Developing the Dairy Calf Club  
Heifer, 125  
Missouri Cow Testing Associations,  
126
- with Martin, Theodore T.  
Dairy Calf Clubs, I, II, and III, 145
- Harness, George**  
Farm Security Administration Re-  
habilitation Loan Experience in  
Five Missouri Counties (June  
1942), 89
- Harper, Roscoe E.**  
Local and Special Legislation in  
Missouri Under the Constitution  
of 1875 (in two parts), 58
- Harrell, Hansen Carmine**  
Public Arbitration in Athenian Law,  
9
- Harris, Elmo G.**  
Friction in Air Pipes (in two parts),  
155  
Orifice Measurement of Air in  
Large Quantities, 155  
Road Problems in the Ozarks, 150;  
Second Edition, 150  
Study for Economic Designs in  
Concrete for Culverts, Short  
Rural Bridges, Earth-Covered  
Arches, and Retaining Walls, 157  
Study on Reinforced Concrete  
Dams, 157
- with Park, A. and Peterson,  
H. K.  
Friction in Small Air Pipes, 149
- Harshaw, Harold M.**  
See Hogan, Albert G.
- Hart, W. J.**  
— with Fankhanel, W. R. and  
Thomsen, F. L.  
Operating Practices of Missouri Co-  
operative Elevators, 82
- Hartkemeier, Harry Pelle**  
Supply Function for Agricultural  
Commodities: A Study of the  
Effect of Price and Weather on  
the Production of Potatoes and  
Corn, 8
- Haseman, Leonard**  
Bagworms Destructive in Missouri,  
93  
Beekeeping in Missouri, 82  
Breeding Cages Are Solving Codling  
Moth Problems, 95  
Chinch-Bug and Its Control, 92  
Codling Moth and Its Control, 95  
Codling Moth Problem in Missouri,  
83  
Combatting Stored Grain Pests, 98  
Control of Moles, 98  
Control of Termites, 89  
Control of the San Jose Scale in  
Missouri, 75  
Controlling Bagworm on Ever-  
greens, 100  
Controlling Bean Leaf Damage by  
Beetles, 99  
Controlling Borers of Fruit, Forest,  
and Shade Trees, 85  
Controlling Garden Insects, 98  
Controlling Horn and Stable Flies,  
80  
Controlling Insect Pests of Melons,  
Cucumbers, and Related Crops, 85  
Controlling Mosquitoes in Missouri,  
99  
Controlling the Chinch-Bug, 122  
Controlling the Insect Pests of  
Strawberries, 95  
European Corn Borer, 93, 95  
Evergreen Bagworm, 73  
Federal and State Laws Regulating  
the Propagation and Distribution  
of Nursery Stock (Corrected to  
September, 1920): Inspection,  
Certification, and Transportation  
of Nursery Stock, 93  
Flea Beetle Damage to Garden  
Crops, 99  
Hessian Fly, 97  
Hessian Fly and Its Control (two  
bulletins) 96, 124  
Hessian Fly in Missouri, 92  
Hog Louse and Mange Affect Pork  
Production, 99  
House Fly and Its Control, 123  
Insect Control With Sanitation and  
Cultural Practices, 99  
Insect Pests of Field Crops, 75, 76  
Insect Pests of Garden Crops, 126  
Insect Pests of the Household, 84  
Insects Destructive to Food in the  
Home, 99  
Leaf Worm and Cotton Production,  
99  
Nursery and Orchard Insect Pests,  
76  
Periodical Cicada in Missouri, 75  
Potato Insects and Their Control,  
130  
Present Status of the European  
Corn Borer, 97  
Prevent Cabbage Worm Injury, 99  
Prevent Ox Warble Losses, 99  
Prevent Potato Beetle Damage, 99  
San Jose Scale in Missouri, 73  
Screwworm Menace to Livestock,  
99  
Sheep Scab and Wool Production,  
99  
Sorghum Worm in Missouri, 82  
Spring Cankerworm and Its Con-  
trol, 97  
Summer Chinch-Bug Control, 126,  
128, 131

- Tarnished Plant Bug and Its Injury to Nursery Stock, 102  
Walnut Caterpillar, 87  
Winter Chinch-Bug Control, 126  
— with Brown, Harry E.  
Controlling the Fruit-Tree Leaf Roller, 97  
— with Childers, L. F.  
Controlling American Foulbrood With Sulfa Drugs, 89  
— with Jones, E. T.  
Greenhouse Pests and Their Control, 83  
— with Meffert, R. L.  
Are We Developing Strains of Codling Moths Resistant to Arsenic? 112  
— with Portman, R. W.  
Protecting Man and Livestock From Ticks, 99  
— with Roland, W. E.  
Controlling Bot and Warble Flies of Livestock in Missouri, 87  
— with Sullivan, K. C.  
Controlling San Jose Scale With Lubricating Oil Emulsion, 93  
Controlling the Epidemic of Apple Worms, 80  
Strawberry Crown Borer, 79  
— with Wingo, Curtis W.  
Mexican Bean Beetle and Its Control in Missouri, 97  
*See also* Brown, Harry E.  
Horton, J. R.  
Jenkins, Lee  
Jones, George D.  
Mumford, Frederick B.  
Roselle, R. E.  
Smith, William Ward  
Stone, Philip C.  
Talbert, Thomas J.  
Tyler, E. E.
- Haskell, A. C.**  
*See* Turner, Charles W.
- Haynes, Eli S.**  
Algol Variable RW Monocerotis (24.1907), 42  
Algol Variable RX Draconis (121.1906), 42  
Variable RS Cassiopeiae (108.1904), 42  
— with Shapley, Harlow  
Algol Variable RZ Draconis (26.1907), 42  
*See also* Seares, Frederick H.
- Hays, W. P.**  
Testing Milk and Cream, 94
- Hedrick, Earle Raymond**  
Mathematics, 66
- Heinberg, John G.**  
— with Breckenridge, A. C.  
Law Enforcement in Missouri: A Decade of Centralization and Central Control in Apprehension and Prosecution (1931-1941), 10
- Heinze, P. H.**  
— with Murneek, Andrew E.  
Comparative Accuracy and Efficiency in Determination of Carbohydrates in Plant Material, 118  
*See also* Murneek, Andrew E.
- Heitz, Rudolph**  
Voluntary and Involuntary Nonsuits in Missouri, 62
- Helm, Charles A.**  
Best Practices in Oats Production, 96  
Bindweed and Its Control, 133  
Canada Field Peas, 141  
Canada Thistle, 141  
Catch Crops, 141  
Corn in Missouri: II. Field Methods That Increase the Corn Crop, 77  
Corn Selection for Exhibit Purposes, 94  
Crimson Clover, Kudzu, Beggarweed, and Dalea, 141  
Good Pasture Practice, 132  
Good Practices in Corn Planting and Cultivation, 99  
Growing Barley for Grain, 141  
Growing Cowpeas, 141  
Growing Oats in Missouri, 141  
Growing Orchard Grass in South Missouri, 81, 94  
Growing Rape for Forage, 126  
Growing Soybeans for Hay, 141  
Growing Vetch, 141  
Growing Wheat in Missouri, 123  
Johnson Grass, 141  
Land Management in Corn Production, 98  
Lespedeza for Winter Pasture, 141  
Low Hop Clover, 141  
Management of Korean Lespedeza, 97  
Management of Permanent Pastures in Missouri, 141  
Management of Sweet Clover in a Pasture System, 97  
Meadow and Pasture Management in the Ozark Region of Missouri, 79  
Northeast Missouri Crops Experiment Field, Second Annual Report, 1925, 95  
Oats-Korean Combination, 141  
Orchard Grass in Missouri, 96  
Planting and Cultivating Soybeans for Seed, 128  
Production of Sunflower Seed in Missouri, 130  
Rape for Pasture, 141

- Red Sorrel, 133  
 Seeding Meadows and Pastures, 133  
 Sow Lespedeza in Corn, 141  
 Soybean Varieties for Seed and for Hay, 141  
 Sudan Grass Production in Missouri, 131  
 Sweet Clover, 123  
 Sweet Sorghum (Cane, Sorgo) for Silage and Forage, 133, 135  
 Timothy-Lespedeza Mixture, 100  
 — with Beasley, Robert P.  
 Growing Sorghum and Making Sorghum Syrup, 98  
 — with Etheridge, William C.  
 Lespedeza Sericea, the Newest Legume for Missouri, 83  
 — with Krusekopf, Henry H.  
 Establishing Permanent Pastures in Missouri, 132  
 — with Stadler, Lewis J.  
 Productive Methods for Oats in Missouri, 93  
 Productive Methods for Wheat in Missouri, 77  
*See also* Drew, William B.  
 Etheridge, William C.  
 Hudelson, R. R.  
 Miller, Merritt F.  
 Stadler, Lewis J.  
 Waddill, J. T.
- Henderson, Earl Wilton**  
 Artificial Incubation, 94  
 Fattening Farm Poultry, 94  
 Growth and Development, With Special Reference to Domestic Animals:  
 XVI. The Influence of Temperature and Breeding Upon the Rate of Growth of Chick Embryos, 109  
 — with Brody, Samuel  
 Growth and Development, With Special Reference to Domestic Animals:  
 V. The Effect of Temperature on the Percentage-Rate of Growth of the Chick Embryo, 106  
*See also* Kempster, Harry L.
- Henry, Harry W., Jr.**  
 Proposed Code of Civil Procedure for Missouri—Parties and Pleadings, 62
- Hensley, Harry C.**  
 Incorporation Plans for Fruit Marketing Associations, 127  
 Non-Profit Co-operative Marketing Act of 1923, 128  
 Production of Sunflower Seed in Missouri, 126  
*See also* Thomsen, Frederick L.
- Herbert, Benjamin S.**  
*See* Rucker, Frank W.
- Herman, Harry A.**  
 Growth and Development of Dairy Calves on a Milk Diet, 115  
 Raising the Dairy Calf, 85  
 Testing Milk and Cream, 96  
 — with Graham, W. R., Jr. and Turner, C. W.  
 Effect of Thyroid and Thyroxine on Milk Secretion in Dairy Cattle, 116  
 — with Ragsdale, Arthur C.  
 Artificial Insemination of Dairy Cows, 86  
 Grass Silage in Wartime, 98  
 Korean Lespedeza Seed as a Protein Supplement for Milk Production, 88  
 — with Swanson, Eric W.  
 Variations in Dairy Bull Semen With Respect to Its Use in Artificial Insemination, 119  
*See also* Ely, Ray E.  
 Ragsdale, Arthur C.  
 Ralston, N. P.  
 Swanson, Eric W.  
 Turner, Charles W.
- Herold, Paul G.**  
 Mineralogical Investigation of Chrome-Tin Pinks as Ceramic Stains, 158  
 — with Dodd, C. M.  
 Thermal Dissociation of Diaspore Clay, 158  
 — with Stearns, L. and Smothers, W. J.  
 Relation of Permeability and Specific Gravity of Insulating Refractories, 158  
*See also* Smothers, William J.
- Herring, Virgil V.**  
 — with Brody, Samuel  
 Growth and Development, With Special Reference to Domestic Animals:  
 XLIII. Diurnal Metabolic and Activity Rhythms, 116  
*See also* Brody, Samuel
- Herskovits, Melville J.**  
 Secret Societies, Foreword to, 10
- Hervey, G. W.**  
*See* Kempster, Harry L.
- Heyle, Essie M.**  
 Changes in Canning Vegetables, Season of 1924, 141  
 Children Need Milk, 140  
 Developing Healthy Children: III, 133; IV, 133  
 Economical Selection of Textiles and Clothing, 125  
 Hot School Lunch, 131  
 Manual for Home Economics Extension Clubs, 144  
 Meal Planning, 125, 140



- Milk for Growth, Health, Strength, 126
- Modern Rural Home and Health, 140
- Modern Rural Home in Missouri, 125
- Pickling Fruits and Vegetables, 125, 126
- Selected Apple Recipes, 125
- Use and Preparation of Vegetables, 126
- with Cline, Jessie Alice
- Light Bread From Missouri Soft Wheat Flour, 131
- with Davis, B. S. and Muilenburg, G.
- Manual for Neighborhood Women's Clubs, 144
- with Fyfer, Mrs. J. K.
- Canning Club: I, 145; II, 145
- with Fyfer, Mrs. J. K. and Bedford, Catherine
- Garment Making: I. Household Project, 145
- with Fyfer, Mrs. J. K. and Etheridge, Mrs. W. C.
- Garment Making:
- II. Undergarment Project, 145
- III. Winter Clothes for Girls, 145
- with Hinote, Jane
- 4-H Clothing Club: I. Household Articles, 146
- with Hinote, J. and Chiles, S. H.
- Baking Club I, 145
- with Hinote, J., Chiles, S. H., Bedford, C., and Bedford, V.
- Garment Making Club, I, 145
- with Muilenburg, Gladys
- Manual for Neighborhood Women's Clubs, 144
- Missouri Farm Home at Its Best, 129
- with Robinson, M. E. and Hinote, J.
- Clothing Club: II. Summer Clothes for Girls, 146
- with Robinson, M. E., Van Deusen, Mrs. E. G., and Hinote, J.
- 4-H Clothing Club, I, 146
- with Robinson, M. E., Van Deusen, Mrs. E. G., Martin, L., and Hinote, J.
- Clothing Club: II. Summer Clothes for Girls, 146
- 4-H Clothing Club: III. Winter Clothes for Girls, 146
- with Robinson, M. E., Van Deusen, Mrs. E. G., Martin, L., Hinote, J., and Chiles, S. H.
- Garment Making: II. Summer Clothes for Girls, 146
- See also Carl, Flora L.
- White, Marion K.
- Hibbard, Aubrey D.**
- Growing Potatoes for Home Use, 99
- Growing Potatoes in Missouri, 89
- Photoperiodism and Enzyme Activity in the Soybean Plant, 116
- See also Murneek, Andrew E.
- Talbert, Thomas J.
- Hieser, Lucile**
- See Coles, Jessie V.
- Hightower, Lloyd E.**
- Adapting Horse-Drawn Mowers to Tractor Power, 97
- See also Jones, Mack M.
- Hildebrand, L. E.**
- Economics of Rural Distribution of Electric Power, 46
- Hill, Chesney**
- Doctrine of "Rebus Sic Stantibus" in International Law, 9
- Hill, R. T.**
- with Turner, C. W., Uren, A. W., and Gomez, E. T.
- Hypophysectomy of the Goat, 114
- Hill, Randall C.**
- with Morgan, E. L., Campbell, M. V., and Johnson, O. R.
- Social, Economic, and Homemaking Factors in Farm Living, 109
- Hills, Claude H.**
- with Vinson, C. G.
- Particle Size of Tobacco Mosaic Virus, 117
- Hinote, Jane**
- Recreational Activities for 4-H Clubs, 146
- See also Carl, Flora L.
- Heyle, Essie M.
- Martin, Theodore T.
- Robinson, Mary E.
- Rochefford, Julia M.
- Stebbins, Mary E.
- White, Marion K.
- Woodruff, Louise
- Hinton, E. W.**
- Some Problems in Hearsay and Relevancy in Missouri, 58
- Hodgen, Helen D.**
- Eclipsing Binary RZ Cassiopeiae, 43
- Hogan, Albert G.**
- Calcium Requirement of Brood Sows, 110
- Feeding of Livestock, 83
- How to Choose Commercial Feeds, 98
- Nutrition for Breeding Herds and Flocks, 99
- Retarded Growth and Mature Size of Beef Steers, 107
- Swine Reproduction in Relation to Nutrition, 110

- Vitamins, 88  
 Vitamins for Livestock, 88  
 — with Boucher, Robert V.  
 Nutritional Requirements of the Chick, 112  
 — with Fox, H. D.  
 Growth Curves for Beef Steers, 104  
 — with Guerrant, N. B. and Kempster, H. L.  
 Adequacy of Synthetic Rations for the Growth of Chicks, 105  
 — with Harshaw, Harold M.  
 Some Relations Between Fertility and the Composition of the Diet, 105  
 — with Johnson, S. R.  
 Good Pastures Improve the Pig Crop, 96  
 Inadequacy of the Concentrates Commonly Used in Swine Feeding, 119  
 Supplementary Value of Various Feedstuffs in Brood Sow Rations, 119  
 — with Nierman, John L.  
 Studies in Animal Nutrition: VI. The Distribution of the Mineral Elements in the Animal Body as Influenced by Age and Condition, 106  
 — with Pilcher, Robert W.  
 Effects of Variations in the Amounts of Vitamin B and Protein in the Ration, 112  
 — with Richardson, Luther R.  
 Effect of Ultra-Violet Rays on the Dermatitis Preventing Vitamin, 110-111  
 — with Ritchie, Walter S.  
 Nutritional Requirements of Rabbits and Guinea Pigs, 113  
 — with Salmon, W. D. and Fox, H. D.  
 Influence of the Plane of Nutrition on the Maintenance Requirement of Cattle, 103  
 — with Shrewsbury, C. L. and Kempster, H. L.  
 Effect of Inadequate Rations on the Composition of the Blood and of the Bone of Chicks, 107  
 Relation of Inadequate Rations to the Weights of the Internal Organs of Chicks, 107  
 — with Weaver, L. A., Edinger, A. T., and Trowbridge, E. A.  
 Relation of Feed Consumed to Protein and Energy Retention, 104  
 See also Ashworth, Ural S.  
 Brody, Samuel  
 Chittenden, D. W.  
 Fox, H. D.  
 Griswold, D. J.  
 Haigh, Leonard D.  
 Hunter, Jesse E.  
 Johnson, S. R.  
 Lee, Jordan G.  
 McRoberts, V. F.  
 Mumford, Frederick B.  
 Richardson, Luther R.  
 Trowbridge, P. F.  
**Hogan, Percy A.**  
 History of the University of Missouri Law School, 62  
**Hollinger, A. H.**  
 Scale Insects of Missouri, 103  
**Holmes, Joseph Austin**  
 Individual, the State, and the Nation in the Development of Our Mineral Resources, address, 149  
**Hooker, Henry D., Jr.**  
 Annual and Biennial Bearing in York Apples, 104  
 Certain Responses of Apple Trees to Nitrogen Applications of Different Kinds and at Different Seasons, 103  
 Changes Produced in Apple Trees by Various Types of Pruning, 104  
 Nitrogen Fertilizers for Fruit Trees, 94  
 Peach Culture in Missouri, 78  
 Seasonal Changes in the Chemical Composition of Apple Spurs, 102  
 — with Bradford, F. C.  
 Localization of the Factors Determining Fruit Bud Formation, 103  
 See also Ahmann, C. F.  
 Anderson, A. G.  
 Talbert, Thomas J.  
**Horner, Glenn M.**  
 Relation of the Degree of Base Saturation of a Colloidal Clay by Calcium to the Growth, Nodulation, and Composition of Soybeans, 114  
**Horsfall, Frank, Jr.**  
 — with Vinson, C. G.  
 Apical Dominance in Shoots and Proximal Dominance in Roots as Related to Structural Framework of the Apple, 117  
 Hardiness Investigations With the Apple, 117  
**Horton, J. R.**  
 — with Haseman, Leonard  
 Hessian Fly in Missouri, 122  
**Houchin, O. B.**  
 See Reineke, Ezra P.  
**Hough, Charles M.**  
 Discussion of Judge Pound's Paper, 58-59  
**Howard, Fred L.**  
 Freedom of Speech in Labor Controversies, 63

- Howard, Robert L.**  
 Admissibility of Evidence Obtained by Wire Tapping, 59  
 Control of Unauthorized Practice Before Administrative Tribunals in Missouri, 61  
 Gas and Electricity in Interstate Commerce, 60  
 Gas and Electricity in Interstate Commerce: II. Regulation of Rates and Service; III. State Taxation; 60  
 Recent Developments and Tendencies in the Taxation of Intangibles, 60  
 State Jurisdiction to Tax Intangibles: A Twelve Year Cycle, 63
- Howard, W. L.**  
 Experimental Study of the Rest Period in Plants:  
 Winter Rest, 100  
 Summer Rest of Bulbs and Herbaceous Perennials, Second Report, 101  
 Pot-Grown Woody Plants, Third Report, 101  
 Seeds, Fourth Report, 101  
 Physiological Changes Accompanying Breaking of the Rest Period, Fifth Report, 101  
 Hotbeds and Coldframes: Their Preparation and Management, 91  
 Plant Propagation: Some Phases of Practical Horticulture Adapted to Use in the Public Schools, 90  
 Profits From Spraying 25 Missouri Orchards in 1914, 74  
 Protecting Orchards Against Frosts and Freezes, 91
- Howe, Charles Sumner**  
 Some of the Essentials of Success, address, 149
- Howell, L. D.**  
 — with Burgess, J. S., Jr. and Thomsen, F. L.  
 Farm Prices and Quality of Missouri Cotton, 114
- Howells, Owen**  
*See* Morgan, E. L.
- Hubbard, Noel**  
 Proceedings of the Missouri Mineral Industries Conference Held at Rolla, Missouri, 1938, 158
- Hudelson, R. R.**  
 Fertilizers for Wheat, 123  
 Keeping Soils Productive, 93  
 — with Helm, Charles A.  
 Crop Rotations for Missouri Soils, 77  
*See also* Miller, Merritt F.
- Hudson, David Ernest**  
 Recognition of Foreign Governments and Its Effect on Private Rights, 61
- Hudson, Jay William**  
 Treatment of Personality by Locke, Berkeley, and Hume: A Study, in the Interests of Ethical Theory, of an Aspect of the Dialectic of English Empiricism, 11
- Hudson, Manley O.**  
 Conditions Subsequent in Conveyances in Missouri, 57  
 Estates Tail in Missouri, 57  
 Executory Limitations of Property in Missouri, 57  
 Land Tenure and Conveyances in Missouri, 57  
 Limitations of Personal Property, 57  
 Preliminary Stock Subscription Agreements in Missouri, 57  
 Proposed Regulation of Missouri Procedure by Rules of Court, 58  
 Rule Against Perpetuities in Missouri, 57  
 Transfer and Partition of Remainders in Missouri, 58
- Huff, Kenneth B.**  
 Baled Straw Silos, 141  
 Building With Rock, 135  
 Farm Lighting, 134  
 Loading Livestock, 136  
 Low Cost Kitchen Water System, 136  
 Native Lumber Silos, 134  
 Temporary Silos, 133  
*See also* Anderson, J. W. C.  
 Moyer, D. D.  
 Rohde, C. E.  
 Wooley, John C.
- Hughes, H. D.**  
*See* Miller, Merritt F.
- Hulen, Rubey**  
*See* McBaine, J. P.
- Humbert, R. P.**  
 — with Marshall, C. Edmund  
 Mineralogical and Chemical Studies of Soil Formation From Acid and Basic Igneous Rocks in Missouri, 121
- Hummel, B. L.**  
 Community Organization, 127  
 Community Organization in Missouri, 128, 129
- Humphrey, H. O.**  
*See* French, Herbert E.
- Hunter, Elmo**  
 One Year of Our Federal Rules, 62
- Hunter, Jesse E.**  
 — with Durant, A. J. and Hogan, A. G.

- Studies on the Pathology and Physiology of the Cecal Pouches of Turkeys: II. The Utilization of Food by Turkeys With Abligated Ceca, 108
- Huse, N. A.**  
See Eads, George W.
- Huston, Margaret C.**  
See White, Marion K.
- Hutchings, Theron B.**  
Relation of Phosphorus to Growth, Nodulation, and Composition of Soybeans, 114
- Hutchison, C. B.**  
Growing Rape for Forage, 122  
Hairy Vetch for Missouri, 122  
Seeding of Alfalfa, 91  
Seeding of Meadows and Pastures, 92  
Selecting and Judging Corn, 91  
Selection of Corn for Seed and for Show, 91  
— with Douglass, T. R.  
Experiments With Farm Crops in Southwest Missouri, 74  
— with Evans, A. R., Hackleman, J. C., and McDonald, E. M.  
Variety Tests of Corn, 75  
See also Miller, Merritt F.
- Hyde, Laurance M.**  
Origin and Development of Missouri Appellate Procedure, 61
- Ibach, Donald B.**  
New Farming Systems Applied to Southwest Missouri Upland Farms, 134  
Re-planning Missouri Farms, 134  
— with Steele, H. B.  
New Systems on Northwest Missouri Upland Farms, 135
- Ingalls, W. R.**  
Business of Mining, address, 150
- Ingram, John Charavelle**  
Studies in the Production of Oils and Tars From Bituminous Materials, 156
- Irwin, M. Richard**  
— with Kempster, Harry L.  
Korean Lespedeza Seed as a Protein Supplement in Chick Rations, 88  
Value of Soybean Oil Meal in Broiler Rations, 88
- Itschner, E. T.**  
Music Appreciation for 4-H Clubs, 148  
— with Clark, M. W. and Rohde, C. E.  
Combination Brooder and Range Shelter for the Family Poultry Flock, 137
- with Ricketts, Ralph L.  
Stanchions for Dairy Cows, 139  
See also Coleman, Otis T.  
Ewing, Thomas A.  
Jones, Mack M.  
Ragsdale, Arthur C.  
Regan, Maurice J.  
Rohde, C. E.  
Trowbridge, Edwin A.
- Itschner, K. F.**  
See Richardson, Luther R.
- James, Eldon R.**  
Some Aspects of the Status of Children in Missouri, 57
- James, Floyd Dixie**  
Hydrometallurgy and the Electrolytic Precipitation of Zinc, 156
- Jayne, Sears Reynolds**  
Marsilio Ficino's Commentary on Plato's *Symposium*, 10
- Jeffrey, A. A.**  
How to Write Interesting Club News, 142  
See also Meyer, A. J.
- Jeffrey, Lisle**  
See McCormick, Leighton E.
- Jenkins, Lee**  
Control of Apple Insects, 100  
— with Brown, H. E., Wingo, C. W., Smith, W. W., and Haseman, L.  
Codling Moth Control, 88  
— with Haseman, Leonard  
Preventing Wormy Apples, 97  
See also Smith, William Ward
- Jenny, Hans**  
Behavior of Potassium and Sodium During the Process of Soils Formation, 109  
Soil Fertility Losses Under Missouri Conditions, 82  
Study on the Influence of Climate Upon the Nitrogen and Organic Matter Content of the Soil, 109
- Jensen, Anna C.**  
Feeding the Baby, 124  
Steam Pressure Cooking, 125
- Johnson, Oliver R.**  
Acquiring Farm Ownership by Payments in Kind: A Plan to Permit Tenants to Buy Farms Through Annual Product Payments, 85  
Corn Belt Family Farm in an Industrial Era, 100  
Cost of Producing Wheat and Oats in Missouri, 1920, 93  
Costs of Family Living on the Farm, 78  
Distribution of Farm Labor, 101

- Establishing Discharged Service Men and War Workers on Farms, 100
- Farm Tenant and His Renting Problem, 82
- Farming on a War Basis, 123
- Increasing the Farmer's Net Income by Reducing Costs, 126
- Sharing Earnings and Management to Hold Workers on Farms, 99
- Some Considerations in Buying a Farm, 100
- Successful Farm Organization, 75
- Value of Education to the Farmer, 92
- Wartime Agricultural Production and the Labor and Equipment Problem, 100
- Work of a Farmers' Exchange, 123
- 
- with Foard, W. E.
- Cost of Production on Missouri Farms, 74
- Land Tenure, 74
- Size of Farm Business, 75
- 
- with Frame, Benjamin H.
- Cost and Income of the Farm Poultry Flock, 78
- 
- with Green, R. M.
- Cost of Horse Labor on the Farm, 75
- Cost of Producing Some Missouri Farm Crops, 76
- Influence of Capital on Farm Organization: I. In a Livestock Section, 76
- Profits From Milk Cows on General Corn Belt Farms, 76
- Renting Land in Missouri: Share, Share-Cash, and Cash Systems With Model Forms of Lease, 76
- See also* Collier, George W.
- Hammar, Conrad H.
- Hill, Randall C.
- Miller, Merritt F.
- Rawlings, Brown R., Jr.
- Waddill, J. T.
- Johnson, Paul H.**
- Oriental Fruit Moth, 130
- Johnson, S. R.**
- 
- with Hogan, A. G. and Ashworth, U. S.
- Utilization of Energy at Different Levels of Protein Intake, 115
- See also* Hogan, Albert G.
- Phillips, Virgil W.
- Jones, A. A.**
- See* Mumford, Frederick B.
- Jones, Abner**
- See* Elliff, Joseph Doliver
- Jones, E. T.**
- See* Haseman, Leonard
- Jones, George D.**
- Control of Garden Pests, 135.
- Garden Pest Control, 132
- Grasshopper Outbreaks in Missouri, 86
- Rat Riddance, 138
- 
- with Haseman, Leonard
- Grasshoppers and Their Control in Missouri, 134
- 
- with Martin, Theodore T.
- 4-H Entomology Club:
- I. Study of Insects, 147
- II. Beekeepers' Club, 148
- Jones, J. C.**
- Success of the College Graduate, 16
- Jones, Mack M.**
- Building a Sweep Rake, 100
- Combine Harvester in Missouri, 81
- Farm Lighting Systems, 79
- Saving Gasoline on the Farm, 100
- 
- with Beasley, Robert P.
- Combine Harvesters in Missouri, 87
- Corn Tillage Studies on Rolling Putnam Silt Loam, 89
- 
- with Clark, M. W., Martin, T. T., and Itschner, E. T.
- Farm Handicraft:
- I. Rope Work, 147
- II. Woodwork, 147
- 
- with Hightower, Lloyd E.
- Farm Tractors: Their Care, Operation, and Maintenance, 89
- Mower Repair and Adjustment, 137
- Plow Adjustment and Operation, 98
- Rental Rates for Farm Machines, 98
- 
- with Rohde, C. E.
- Homemade Electric Brooder, 139
- 
- with Smith, Dwight D.
- Silo Filling Methods and Costs, 82
- See also* Procter, Robert C.
- Smith, Dwight D.
- Stadler, Lewis J.
- Wooley, John C.
- Jopling, Letha Knight**
- 
- with Carl, Flora L.
- Eggs for Family Use, 137
- Vegetables for the Family, 142
- 
- with Regan, Maurice J.
- Suggestions for Dairy Leaders, 143
- See also* Anderson, J. W. C.
- Carl, Flora L.
- Kane, Charles E.**
- Journalist's Library: Books for Reference and Reading, 52
- Kaucher, Dorothy Juanita**
- Modern Dramatic Structure, 7
- Kaufman, Kenneth**
- See* Brody, Samuel
- Keeney, M. H.**
- Winter Dairy Rations, 140

**Keeney, Pauline E.**

Comparative Study of Some Drapery Fabrics Available in 1942 and 1943, 122

Effects of Wartime Measures on Cotton Dress Fabrics, 122

*See also* Bennett, Norrine Grover

**Keffer, Charles A.**

Grape Culture, 70

Seedling Strawberries, 70

Spraying Apple Trees for Destruction of Insects, and Prevention of Fungous Diseases, 71

Strawberries, 70

**Kellogg, E. W.**

Use of Metal Conductors to Protect Buildings From Lightning, 46

**Kemp, James Furman**

Human Side of Mining Engineering, address, 150

**Kempster, Harry L.**

Colony Brooder House, 130, 138

Correlation Between Sexual Maturity and Egg Production, 105

Culling for Egg Production, 128

Farm Poultry House Construction, 74

Farmer's Poultry House, 92

Feed Purchasing Power of a Hen's Egg Production, 80, 83

Feeding Baby Chicks, 93, 94, 95, 130, 135, 140

Feeding for Egg Production, 92, 93, 95, 132, 136

Influence of Animal and Vegetable Proteins on Egg Production, 79

Influence of Various Protein Concentrates on Egg Production, 81

Judging of Chickens, 123

Missouri Colony Brooder House, 93

Missouri Poultry House, 92, 93, 125, 133

Normal Growth of Chickens, 87

Protein Feeds for Laying Hens, 92

Relation of the Date of Sexual Maturity to Egg Production, 105

Sour Milk for Chicken Feeding, 92

Story of a Backyard Flock, 123

30 x 30 Missouri Poultry House, 94, 129, 130

— with Funk, Ernest M.

Some Production Costs With Growing Chicks, 82

— with Henderson, Earl W.

Rate of Growth of the Domestic Fowl, 104

— with Hervey, G. W.

Meat Scrap and Sour Milk for Egg Production, 76

— with Parker, Jesse E.

Normal Growth of Chickens Under Normal Conditions, 115

— with Winton, Berley

Five Years of Poultry Record Keeping in Missouri, 1929 to 1933, 133

*See also* Brody, Samuel

Funk, Ernest M.

Hogan, Albert G.

Irwin, M. Richard

Parker, Jesse E.

Ragsdale, Arthur C.

Trowbridge, Edwin A.

**Kempster, Mrs. Harry L.**

*See* Heyle, Essie M.

**Kershner, Karl Kenneth**

*See* Dunlap, Howard Leroy

**Ketchum, Milo S.**

Engineering and Research, address, 157

**Keyte, I. A.**

*See* Branson, Edwin B.

**Kibler, Hudson H.**

— with Brody, Samuel

Growth and Development, With Special Reference to Domestic Animals:

LVII. An Index of Muscular-Work Capacity, 121

*See also* Brody, Samuel

**Kiess, C. C.**

Visual and Photographic Light Variations of RR Lyrae, 43

Visual and Photographic Light Variations of RT Aurigae, 43

**King, Bascom M.**

Cotton Production in Missouri, 82

Cotton Varieties for Southeast Missouri, 79

Flax in Missouri, 142

Good Varieties of Cotton for Missouri, 96, 97

Inferiority of Foreign Red Clover Seed, 95

Kentucky Bluegrass in Missouri, 95

Report on Missouri Cotton Experiment Fields, 1925, 94

Report on Southeast Missouri Cotton Experiment Fields, 1924, 94

Small Grain Production in the Lowland Region of Southeast Missouri, 88

Soybean Crop in Missouri, 96

Soybean Hay Production, 133

Utilization of Wabash Clay (Gumbo) Soils in Crop Production, 115

— with Allen, Denver I.

Soybean Production in Missouri, 88

*See also* Etheridge, William C.

**Kinnaird, R. A.**

*See* Tascher, W. R.

**Kinyon, H. H.**

Alumni Directory, 1843-1917, 21

**Kirby, Edmund B.**

Human Side of a Mining Engineer's Life, address, 149

- Kirkpatrick, Roy T.**  
*See* Emberson, R. H.  
 Stadler, Lewis J.
- Klemme, Arnold W.**  
 Fertilizers for Fall Sown Crops, 140  
 Soil Treatment to Improve Permanent Pastures, 100  
 Soils and Soil Fertility for Soybeans, 140  
 — with Coleman, Otis T.  
 Evaluating Annual Changes in Soil Productivity, 86  
 Fertilizer Recommendations for Spring and Summer Crops, 1944, 140  
*See also* Coleman, Otis T.
- Klingner, Mary L.**  
 — with Sensintaffar, Lilian  
 Related Science for Use in Vocational Home Economics Classes of Missouri High Schools, 44
- Kneeland, Hildegard**  
 Feeding of Children, 48
- Knight, D. R.**  
 — with McDougale, H. C. and Durant, A. J.  
 Trichomoniasis of Turkeys, 88
- Knight, Ewart B.**  
 — with Dickinson, Sherman  
 Handbook for Students of Vocational Agriculture, 45
- Knight, Letha O.**  
*See* Jopling, Letha Knight
- Koger, Marvin**  
 — with Turner, Charles W.  
 Effects of Mild Hyperthyroidism on Growing Animals of Four Species, 122
- Kohler, Lucille T.**  
 Neosho, Missouri, Under the Impact of Army Camp Construction: A Dynamic Situation, 11
- Korando, Sidney**  
*See* Spicer, Mildred
- Krusekopf, Henry H.**  
 Brown Loess Soils of Missouri and Their Utilization, 79  
 Effect of Slope on Soil Erosion, 121  
 Missouri Soil Survey, 93  
 Soil Fertility Investigations:  
 Brown Limestone Land of Southwestern Missouri (Newtonia Experiment Field), 85  
 Rolling Prairie Land of Southwestern Missouri (Eldorado Springs Experiment Field), 86  
*See also* Doneghue, R. C.  
 Hammar, Conrad H.  
 Helm, Charles A.  
 Miller, Merritt F.  
 Waddill, J. T.
- Kuechler, A. H.**  
*See* Wheeler, E. S.
- Kunkel, O. L.**  
 — with Charters, W. W.  
 Rural School Consolidation in Missouri, 43
- Landis, James M.**  
 Law and the New Liberties, 62
- La Rue, Harry A.**  
 Earth Roads and the Oiling of Roads, 46  
 Grading of Earth Roads, 47
- Lasley, John F.**  
 — with Bogart, Ralph  
 Some Factors Influencing Reproductive Efficiency of Range Cattle Under Artificial and Natural Breeding Conditions, 122  
 — with Easley, G. T. and McKenzie, F. F.  
 Staining Method for the Differentiation of Live and Dead Spermatozoa, 100
- Lawrence, H. M.**  
 Recent Developments in Ammonia Leaching for Zinc Ores, 157  
*See also* Wheeler, E. S.
- Leach, C. Willard**  
*See* Peck, Ralph H.
- Lee, Jordan G.**  
 — with Hogan, Albert G.  
 Vitamins Required by Pigeons, 120
- Leech, Esther Gladys**  
*See* Ramsay, Robert L.
- Lefevre, George**  
 Evolutional Zoology, 66
- Leflar, Robert A.**  
 Constitutional Jurisdiction Over Tangible Chattels, 61  
 More Faith and Credit for Divorce Decrees, 62  
 Wigmore and Evidence: A Review, 62
- Lehmann, E. W.**  
 Directions for Constructing a Self-Feeder, 75  
 Farm Buildings for Missouri, 124  
 Farm Lighting Systems, 123  
 Gravity System Water Supply for the Farm Home, 141  
 Hot and Cold Water in the Farm Home, 141  
 Pneumatic Water System for the Farm Home, 141  
 Simple Water System for the Farm Home, 141  
 — with Duley, F. L.  
 Mangum Terrace, 93  
 — with Fenton, F. C.  
 Tile Drainage, 123  
*See also* Taylor, Carl C.

- Lehmann, Frederick W.**  
Law and the Newspaper, 52
- Lepidus, Henry**  
History of Mexican Journalism, 54
- Lewis, A. A.**  
— with Turner, Charles W.  
Mamogenic Hormones of the Anterior Pituitary: I. The Duct Growth Factor, 118
- L'Hote, Homer J.**  
Measuring the Productive Value of Pastures, 88  
See also Miller, Merritt F.
- Limbaugh, Rush H.**  
Adoption of Children in Missouri, 61
- Linn, M. P.**  
See Eads, George W.
- Lively, Charles E.**  
— with Almack, Ronald B.  
Rural Population Resources of Missouri, 118  
Some Rural Social Agencies in Missouri: Their Nature and Extent, 118  
— with Gregory, Cecil L.  
Rural Social Areas in Missouri as Determined by Statistical Analysis of County Data, 118  
See also Meier, Iola
- Lockwood, Sara L.**  
Missouri Alumni in Journalism: A Directory of the Graduates and Former Students, 1925, 53  
Women and the Newspaper, Introduction to, 53  
Written by Students in Journalism: Selected Articles, 54
- Lodeman, E. G.**  
Spray Calendar, 71
- Logan, J. C.**  
See Murneek, Andrew E.
- Logan, James C.**  
Legal Protection of Ideas, 62
- Lomas, C. H.**  
See Turner, Charles W.
- Long, C. M.**  
Community Dairy Development by the Pettis County Plan, 125
- Long, Howard Rusk**  
Periodic Survey of Newspaper Reading: The Columbia Missourian, 1942-43, 56
- Long, J. H.**  
— with Murneek, Andrew E.  
Nitrogen and Carbohydrate Content of the Strawberry Plant: Seasonal Changes and the Effects of Fertilizers, 115  
See also Miller, Merritt F.
- Loomis, Ralph**  
Co-operative Elevator Association: Articles of Incorporation and By-Laws, 125  
Co-operative Livestock Shipping Associations in Missouri, 77
- Lott, R. V.**  
Correlation of Chemical Composition With Hardiness in Brambles, 106
- Lovejoy, Arthur O.**  
Unity of Science, 66
- Lowvorn, R. L.**  
See Miller, Merritt F.
- Lutz, J. Fulton**  
Physico-Chemical Properties of Soils Affecting Soil Erosion, 113
- McAdams, A. J.**  
Handling Explosives on the Farm, 127  
Use of Dynamite for Ditch Blasting, 128
- McBaine, J. P.**  
Certiorari From the Missouri Supreme Court to the Courts of Appeals, 58  
Discussion of Judge Pound's Paper, 59  
Extraordinary Writ of Prohibition in Missouri (in three parts), 59  
Writ of Certiorari in Missouri, 57  
— with Hulen, R., Wheaton, C. C., Martin, J. T., Stinson, P. R., and Williams, T.  
Symposium on the Proposed Code of Civil Procedure for Missouri, 63
- McBride, O. C.**  
Controlling Peach Tree Borers With Paradichlorobenzene, 94  
Injurious Insect Pests of Strawberries, 78
- McCalla, Thomas M.**  
Behavior of Legume Bacteria (*Rhizobium*) in Relation to Exchangeable Calcium and Hydrogen-Ion Concentration of the Colloidal Fraction of the Soil, 115
- McCandliss, Edgar S.**  
Preliminary Report on Blended Portland Cement, 156  
— with Armsby, Henry H.  
Investigation of Blended Portland Cement, 156
- McCapes, A. M.**  
Important Facts Concerning Bang's Abortion Disease in Cattle, 132
- McCaustland, E. J.**  
Better Highways, 48  
Country Roads, 124



- Water Supply and Sewage Disposal for Country Homes, 47
- McCleary, Glenn Avann**  
Bases of the Humanitarian Doctrine Re-examined, 62  
Liability of a Possessor of Land in Missouri to Persons Injured While on the Land, 60  
Restatement of the Law of Torts and the Missouri Annotations, 61  
Some Problems Involved in Conditional Deliveries of Deeds, 60
- McClintock, Barbara**  
Cytological Observations of Deficiencies Involving Known Genes, Translocations and an Inversion in *Zea mays*, 109  
Fusion of Broken Ends of Sister Half-Chromatids Following Chromatid Breakage at Meiotic Anaphases, 117
- McCool, M. M.**  
*See* Doneghue, R. C.
- McCormick, Leighton E.**  
Planting and Care of Forest Trees on Missouri Farms, 136  
— with Bowen, Calvin M.  
Answers to Some Common Questions on Clearing Timbered Land, 136  
— with Bowen, C. M. and Clark, M. W.  
Tree Planting for Erosion Control, 142  
— with Jeffrey, L. and Martin, T. T.  
Wildlife Conservation, 148
- McCoy, A. W.**  
Artesian Water in Missouri, 46
- McCrory, S. A.**  
— with Vinson, C. G.  
Substitute Spray Materials, 117  
*See also* Vinson, C. G.
- McCubbin, E. N.**  
*See* Murneek, Andrew E.
- McCulloch, Albert J.**  
Loan Office Experiment in Missouri, 1821-1836, 66
- McDaniel, J. S.**  
Control of Hog Cholera, 123
- McDonald, E. M.**  
*See* Hutchison, C. B.
- McDonald, May C.**  
*See* Stanley, Louise
- McDougle, Harold C.**  
— with Durant, Adrian J.  
Common Internal and External Parasites of Poultry, 89  
*See also* Durant, Adrian J.  
Knight, D. R.
- McFarlan, Lee Horace**  
Transformation of the Euler Condition in the Calculus of Variations, 7
- McGill, Caroline**  
Spermatogenesis of Anax Junius, 11
- McHoney, Leon L.**  
*See* Anderson, Dean C.
- MacKay, Hugh**  
Alumni Directory, 66
- McKenzie, Fred F.**  
Growth and Reproduction in Swine, 107  
Normal Oestrous Cycle in the Sow, 105  
— with Berliner, Victor  
Reproductive Capacity of Rams, 116  
— with Miller, J. C. and Bauguess, L. C.  
Reproductive Organs and Semen of the Boar, 116  
— with Terrill, Clair E.  
Estrus, Ovulation, and Related Phenomena in the Ewe, 116  
*See also* Andrews, Frederick N.  
Casida, L. E.  
Lasley, John F.  
Nahm, Laura J.  
Parker, Jesse E.  
Phillips, Ralph W.  
Warbritton, Virgene
- McNatt, H. E.**  
Directions for Testing Milk on the Farm by the Babcock Method, 91  
Plastered or Gurler Silo, 91
- McReynolds, D. K.**  
*See* Vinson, C. G.
- McRoberts, Vernon F.**  
— with Hogan, Albert G.  
Rearing Orphan Pigs, 98
- McVey, Karl A.**  
Water Supply for Country Homes, 46
- Magruder, D. M.**  
*See* Eckles, C. H.
- Mairs, T. I.**  
Influence of Height of Wheel on the Draft of Farm Wagons, 71
- Major, Horace F.**  
Development and Care of Lawns, 97, 131  
Lawns and Lawn Making, 94  
Pruning Shade Trees, 92
- Maneval, Willis E.**  
List of Missouri Fungi, With Special Reference to Plant Pathogens and Wood-Destroying Species, 9  
Parasitic and Wood-Destroying Fungi of Boone County, Missouri, 7

**Mangold, George B.**

Children Born Out of Wedlock: A Sociological Study of Illegitimacy, With Particular Reference to the United States, 12

**Mannly, William Gwathmey**

Ithaca or Leucas? 11

**Mann, Clair V.**

Evaluation of Placement Examinations, 157

**Mann, Horace Tharp**

History and the Development of the Cyanide Process, 149

— with Clayton, Charles Yancey  
Cupellation Losses in Assaying, 155

See also Copeland, D.

Thornberry, Martin Harmon

**Mann, L. B.**

See Etz, W. F.

**Mann, Robert S.**

Deskbook of the School of Journalism: Sixth, Seventh, and Eighth Editions, 53; Ninth Edition, 54

Editorial Page, 52

**Marbut, Curtis Fletcher**

Evolution of the Northern Part of the Lowlands of Southeastern Missouri, 11

Geology, 66

Soils of the Ozark Region: A Preliminary Report on the General Character of the Soils and the Agriculture of the Missouri Ozarks, 100

**Marks, Besse B.**

Recent Books for Journalists, 54

**Marshall, C. Edmund**

Exchangeable Bases of Two Missouri Soils in Relation to Composition of Four Pasture Species, 122

See also Caldwell, O. G.

Humbert, R. P.

Whiteside, E. P.

**Martin, Charles William**

— with Doolittle, Nettie-Alice  
Directory of Graduates and Brief Historical Sketch of the School of Education, 44

See also Neale, M. G.

**Martin, Floyd A.**

Early Diagnosis and Treatment of Cancer, 65

**Martin, Frank L.**

Journalism for Teachers, 43

Journalism of Japan, 52

**Martin, G. E.**

Temporary Silos, 131, 133

Terracing to Prevent Erosion, 132

**Martin, John T.**

See McBaine, J. P.

**Martin, Lois**

See Heyle, Essie M.

**Martin, Theodore T.**

4-H Stock Judging Club, 147

— with Emberson, R. H. and

Hinote, J.

Songs and Yells for Missouri Boys' and Girls' Clubs, 145

— with others

Plans for Conducting Boys' and Girls' 4-H Club Work in Missouri (three bulletins), 144

Plans for Conducting 4-H Club Work in Missouri, 144

See also Anderson, J. W. C.

Burch, James W.

Carter, C. E.

Coleman, Otis T.

Fletcher, Peter

Garlock, H. M.

Harman, K. G.

Harmon, E. M.

Jones, George D.

Jones, Mack M.

McCormick, Leighton E.

Paulling, John R.

Peck, Ralph H.

Regan, Maurice J.

Rohde, C. E.

Russell, S. F.

Shrader, H. L.

Winton, Berley

**Martin, William R., Jr.**

Home Storage of Vegetables, 132

— with Carl, Flora L.

Apples for Everyday Use, 136

Suggestions for Leaders in Home Growing and Use of Fruits, 142

— with Swartwout, Harold G.

Growing Fruit for Family Use, 137

— with Swartwout, H. G. and

Clark, M. W.

Establishment and Early Management of the Vineyard, 140

See also Swartwout, Harold G.

**Marx, C. W.**

— with Schweitzer, Paul

Heating Value and Proximate Analyses of Missouri Coals, 46

**Matthews, John S.**

See Brody, Samuel

**Mayer, Dennis T.**

See Moore, Burton H.

**Meckel, Frank A.**

Sewage Disposal for Farm Homes, 124

**Meffert, R. L.**

See Haseman, Leonard

**Mehl, Maurice G.**

*Pseudopalatus Pristinus*: A New Genus and Species of Phytosaurs From Arizona, 7

See also Branson, Edwin B.

- Meier, Iola**  
 — with Lively, Charles E.  
 Family Health Practices in Dallas  
 County, Missouri, 121
- Menger, Karl**  
 Distance Geometries, Introduction  
 to, 9
- Mercer, Ralph E.**  
 — with Haag, Herman M.  
 Amounts and Cost of Credit Ex-  
 tended by Co-operative Exchanges,  
 86
- Merrill, F. S.**  
*See* Talbert, Thomas J.
- Meyer, A. J.**  
 Agricultural Extension Work: Re-  
 port for the Year 1918, With Com-  
 parative Data for Preceding Years,  
 144  
 Better Farming in Missouri: Report  
 of the Agricultural Extension  
 Service for the Year Ending No-  
 vember, 1929, 144  
 Extension Projects in Agriculture  
 and Home Economics, 1922, 144  
 Increasing Farm Efficiency: Report  
 of the Agricultural Extension  
 Service for the Year Ending No-  
 vember, 1928, 144  
 Taking the College to the People,  
 144  
 — with Jeffrey, A. A.  
 Making the Farm Pay: Biennial Re-  
 port of the Agricultural Exten-  
 sion Service, 144  
 — with Redford, Mrs. W. O.,  
 Brown, R. Q., Bain, P., Cole,  
 E. R., Cochel, W. A., Rodekohr,  
 E. J., and others  
 Program for Missouri Agriculture,  
 144  
*See also* Mumford, Frederick B.
- Meyer, Max F.**  
 Contributions to a Psychological  
 Theory of Music, 11  
 Fitting Into a Silent World: The  
 First Six Years of Life, 9  
 Introduction to the Mechanics of  
 the Inner Ear, 12  
 Kind of Scholarship Records to be  
 Kept in Schools, 44  
 Musician's Arithmetic: Drill Prob-  
 lems for an Introduction to the  
 Scientific Study of Musical Com-  
 position, 7
- Meyers, A. M., Jr.**  
 — with Hammar, Conrad H.  
 Land Use Experience in Callaway  
 County, Missouri, 120
- Milam, Carl Hastings**  
 Missouri in the Library War Serv-  
 ice, Introduction to, 64
- Miller, A. K.**  
*See* Branson, Edwin B.
- Miller, Edith**  
*See* Charters, W. W.
- Miller, J. C.**  
*See* Foster, M. T.  
 McKenzie, Fred F.
- Miller, James Conelese**  
 Induction and Adaptation of Col-  
 lege Freshmen, 45  
*See also* Neale, M. G.
- Miller, Merritt F.**  
 Alfalfa Growing in Missouri, 72  
 Choosing a Commercial Fertilizer,  
 129  
 Commercial Fertilizers for General  
 Field Crops, 132  
 Control of Soil Washing, 92  
 Cropping Systems in Relation to  
 Erosion Control, 84  
 Fertility of the Soil, 92  
 How to Choose a Commercial Fer-  
 tilizer, 126  
 Principles of Maintaining Soil Fer-  
 tility, 91  
 Seeding of Clovers and Grasses, 91  
 Seeding of Cowpeas (two bulletins),  
 91  
 Soil Conservation in an Improved  
 Agriculture, 84  
 Soil Improvement by the Missouri  
 Plan, 126  
 Soil Management in the Ozark Re-  
 gion, 73  
 Suggestions for Missouri Corn  
 Growers, 90  
 Testing Soils for Acidity by the  
 Modified Comber Method, 128, 133  
 Use of Green Manures in Soil Im-  
 provement, 131  
 — with Duley, F. L.  
 Effect of a Varying Moisture Sup-  
 ply Upon the Development and  
 Composition of the Maize Plant  
 at Different Periods of Growth,  
 105  
 Fertilizer Trials—Wentzville Ex-  
 periment Field (Putnam Silt  
 Loam), 76  
 Soil Experiments on the Brown Silt  
 Loam of the Ozark Border Region  
 (Soil Type—Union Silt Loam), 78  
 Soil Experiments on the Gravelly  
 Ozark Upland (Soil Type—  
 Clarksville Gravelly Loam), 78  
 Soil Experiments on the Ozark Up-  
 land (Soil Type—Gerald Silt  
 Loam), 75  
 — with Emberson, R. H.  
 Ten Lessons on the Study of Indian  
 Corn, 65  
 — with Etheridge, William C.  
 How to Grow Clover, 125, 128

- with Hackleman, J. C.  
Some Factors in Wheat Production, 92
- with Haigh, L. D. and Cowan, E. W.  
Registration, Labeling, and Inspection of Commercial Fertilizers, 1938, 86
- with Haigh, L. D., Cowan, E. W., Long, J. H., and Albrecht, W. A.  
Fertilizer Inspection, Analysis, and Use, 1943, 89
- with Haigh, L. D., Cowan, E. W., and Regan, W. O.  
Fertilizer Inspection, Analysis, and Use, 1942, 89
- with Haigh, L. D., Cowan, E. W., and Williams, V. B.  
Registration, Labeling, and Inspection of Commercial Fertilizers, 1941, 88
- with Haigh, L. D., Cowan, E. W., and Wiseman, L. L.  
Registration, Labeling, and Inspection of Commercial Fertilizers: 1939, 86; 1940, 87
- with Hudelson, R. R.  
Soil Investigations—Jasper County Experiment Field, 74
- Thirty Years of Field Experiments With Crop Rotation, Manure, and Fertilizers, 77
- with Hughes, H. D.  
Co-operative Variety Tests of Corn, Variety Tests of Corn at Columbia, 73
- with Hutchison, C. B.  
Co-operative Experiments of the Department of Agronomy (two bulletins), 91
- Co-operative Experiments With Alfalfa, 74
- Grass Investigations in the Ozark Upland, First Report, 74
- Soil Experiments on the Prairie Silt Loam of Southwest Missouri, 73
- Soil Experiments on the Rolling Limestone Upland of Southwest Missouri, 73
- Soil Experiments on the Upland Loam of Southeast Missouri (Jefferson County), 72
- with Hutchison, C. B., Douglass, T. R., and Hudelson, R. R.  
Drainage Investigations on the Northeast Missouri Prairie, First Report, 74
- with Hutchison, C. B. and Hudelson, R. R.  
Soil Experiments on the Dark Prairies of Central and Northeast Missouri (Soil Type—Grundy Silt Loam), 74
- Soil Experiments on the Gray Prairie of Southwest Missouri (Soil Type—Cherokee Silt Loam), Second Report, 75
- Soil Experiments on the Level Prairies of Northeast Missouri (Soil Type—Putnam Silt Loam), 74
- Soil Experiments on the Red Limestone Upland of Southwest Missouri (Soil Type—Crawford Silt Loam), Second Report, 75
- Soil Experiments on the Rolling Glacial Land of North Missouri (Soil Type—Shelby Loam), 74
- with Johnson, O. R., Doane, D. H., Frame, B. H., Wood, D. C., Bestor, H. P., Taylor, H. C., Krusekopf, H. H., and Helm, C. A.  
Land Valuation, 80
- with Krusekopf, Henry H.  
Agricultural Lime, 75, 76
- Influence of Systems of Cropping and Methods of Culture on Surface Runoff and Soil Erosion, 110
- Soils of Missouri, 76, 80
- with Lovvorn, R. L.  
Investigations in the Use of Nitrate of Soda for Field Crops, 83
- with Shirky, S. B. and L'Hote, H. J.  
Agricultural Experiment Station Serves the People: Work of the Agricultural Experiment Station During the Year Ending June, 1940, 88
- Agricultural Investigations: Work of the Agricultural Experiment Station During the Year Ending June, 1939, 88
- Year's Work in the Investigation of Agricultural Problems: Work of the Agricultural Experiment Station During the Year Ending June, 1941, 89
- See also Duley, F. L.  
Haigh, Leonard D.  
Mumford, Frederick B.  
Waddill, J. T.
- Miller, O. N.  
See Richardson, Luther R.
- Miller, Walter  
Daedalus and Thespis: Volume II, Sculpture, Parts I and II; Volume III, Painting and Allied Arts, Parts I and II; 8
- Million, Elmer M.  
Political Crimes (in two parts), 62
- Minert, K. R.  
See Reid, William H. E.

- Mitchell, O. W. H.**  
 Bacteria and Disease, 65  
 Prevention of Tuberculosis, 65  
 Water: The Prevention of Its Pollution, 65
- Mixner, John P.**  
 — with Turner, Charles W.  
 Mammogenic Hormones of the Anterior Pituitary: II. The Lobule-Alveolar Growth Factor, 122
- Moffett, H. C.**  
 See Trowbridge, Edwin A.  
 Weaver, Luther A.
- Monkemeyer, Herbert N.**  
 Five Years of the Norris-LaGuardia Act, 61
- Moore, Burton H.**  
 — with Mayer, Dennis T.  
 Concentration and Metabolism of Sugar in Ram Semen, 120
- Moore, Horatio B.**  
 Illustration in Advertising, 53
- Moore, P. N.**  
 Engineer, address, 151
- Moore, R. K.**  
 See Hammar, Conrad H.
- Moorman, Robert B. B.**  
 Semi-Graphical Method of Analysis for Horizontally Curved Beams, 47
- Morelock, Thomas C.**  
 Deskbook of the School of Journalism: Tenth, Eleventh, and Twelfth Editions, 55; Thirteenth, Fourteenth, and Fifteenth Editions, 56
- Morgan, E. L.**  
 — with Burt, Henry J.  
 Community Relations of Rural Young People, 106  
 — with Ensminger, J. D. and Sneed, M. W.  
 Rural Women and the Works Progress Program: A Partial Analysis of Levels of Living, 115  
 — with Howells, Owen  
 Rural Population Groups, 104  
 — with Sneed, Melvin W.  
 Activities of Rural Young People in Missouri: A Survey of 2,297 Young People Attending High School, 116  
 Libraries of Missouri: A Survey of Facilities, 114  
 See also Hill, Randall C.
- Morgan, L. E.**  
 See Mumford, Frederick B.  
 Trowbridge, P. F.
- Morse, True D.**  
 Mid-West System of Marking Co-operative Livestock Shipments, 126
- Prorating Expenses on Co-operative Shipments of Livestock, 127  
 Stock Yard Equipment for Livestock Shipping Associations, 127
- Moseley, W. K.**  
 See Reid, William H. E.
- Mott, Frank Luther**  
 100 Books on American Journalism, 56
- Moulton, C. Robert**  
 Growth of the Hereford-Shorthorn Steer, 104  
 — with Trowbridge, P. F. and Haigh, L. D.  
 Studies in Animal Nutrition:  
 I. Changes in Form and Weight on Different Planes of Nutrition, 103  
 II. Changes in Proportions of Carcass and Offal on Different Planes of Nutrition, 103  
 III. Changes in Chemical Composition on Different Planes of Nutrition, 103  
 V. Changes in the Composition of the Mature Dairy Cow While Fattening, 104  
 See also Haigh, Leonard D.  
 Mumford, Frederick B.  
 Ritchie, Walter S.  
 Trowbridge, P. F.
- Moyer, D. D.**  
 — with Huff, Kenneth B.  
 Homemade Poultry Equipment, 136  
 Missouri Summer Range Shelter, 136  
 See also Rohde, C. E.
- Muilenburg, Gladys**  
 See Heyle, Essie M.
- Mull, L. E.**  
 — with Reid, W. H. E. and Arbuckle, W. S.  
 Effect of Standardizing the Acidity in the Manufacturing of Cottage Cheese and Cultured Buttermilk, 119
- Mullett, Charles Frederic**  
 Colonial Claims to Home Rule (1764-1775): An Essay in Imperial Politics, 7  
 Letters of Doctor George Cheyne to Samuel Richardson (1733-1743), 10  
 Lord Mansfield and the English Dissenters, 61  
 On Englishing the Law of England, 62  
 Some Political Writings of James Otis (in two parts), 8  
 Value of Law to Historians, 63
- Mumford, Frederick B.**  
 Breeding Experiments With Sheep, 71

Contributions to Knowledge in Agriculture: Agricultural Experiment Station, Report of the Director, 1922-1923, 78

Effect on Growth of Breeding Immature Animals, 103

Factors in Profitable Beef Production, 90

Fattening Cattle on Blue Grass Pasture, 73

History of the Missouri College of Agriculture, 90

How the Station Works: Report of the Agricultural Experiment Station for the Year Ended June, 1917, 75

Land Grant College Movement, 87

Missouri Fertilizer Law, 92

New Knowledge, Agricultural Experiment Station, Report of the Director: 1921-1922, 77; 1923-1924, 79

Normal Growth of Domestic Animals, Introduction to, 104

One Year's Work: Agricultural Experiment Station, Report of the Director, 1920-1921, 77

Post-War Agricultural Experiment Station, 99

Post-War Agriculture, 99

Principles of Plant Production: The Seed, 90

Rational Sheep Feeding, 91

Report of the Director for the Year Ending: June 1910, 73; June 1911, 73; June 1912, 74; June 1913, 74

Some New Developments in Agricultural Science: Agricultural Experiment Station, Report of the Director, 1924-1925, 79

What the Agricultural Experiment Station Is Doing for Missouri: Report of the Director, 1919-1920, 77

Work and Progress of the Agricultural Experiment Station for the Year Ending: June 1914, 75; June 1915, 75; June 1916, 75

Work and Progress of the Agricultural Experiment Station: 1917-1918, 76; 1918-1919, 76

— with Haigh, Leonard D.

Inspection and Analysis of Commercial Fertilizers, Spring: 1930, 81; 1932, 82

Inspection of Commercial Fertilizers: 1918, 76; 1919, 76

Missouri Fertilizer Law, 94, 95

Package Fertilizer and the Missouri Fertilizer Law, 95

Registration, Labeling, Inspection, and Sale of Commercial Fertilizers: 1930, 81; 1931, 82; 1932, 82

Testing Fertilizers for Missouri Farmers: 1921, 77; 1922, 77; 1923, 78; 1924, 79

Testing Fertilizers, Spring 1929, 81  
— with Haigh, L. D. and Cowan, E. W.

Registration, Labeling, and Inspection of Commercial Fertilizers: 1934, 84; 1935, 84; 1936, 85; 1937, 85

— with Haseman, Leonard

Inspection Service, Control of Insect Pests and Plant Diseases, 92

— with Hogan, A. G. and Bernard, P. M.

Growth Curves of Swine, 104

— with Meyer, A. J.

Work of the Agricultural Extension Service, 1914-1915, 143

— with Miller, M. F. and Haigh, L. D.

Inspection and Analysis of Commercial Fertilizers, Spring 1931, 82

Testing Fertilizers for Missouri Farmers, 1920, 77

— with Ritchie, W. S., Haigh, L. D., and Cowan, E. W.

Registration, Labeling, and Inspection of Commercial Fertilizers, 1933, 83

— with Schweitzer, Paul  
Commercial Fertilizers, 72

— with Shirky, Samuel B.

Experiment Station Research: Report of the Agricultural Experiment Station for the Year Ending June 1929, 81

Experiment Station Research: Report of the Director for the Year Ending June 1931, 82

How the Experiment Station Solves Farm Problems: Agricultural Experiment Station, Report of the Director, 1927-1928, 80

Investigations of Agricultural Problems: Work of the Agricultural Experiment Station During the Year Ending June 1938, 87

Progress in Agricultural Research: Report of the Director for the Year Ending June 1930, 82

Research in Agriculture: Work of the Agricultural Experiment Station During the Year Ending June 1937, 86

Science Points the Way: Work of the Agricultural Experiment Station During the Year Ending June 1936, 85

Solving Farm Problems by Research, Agricultural Experiment Station, Report of the Director: 1925-1926, 79; 1926-1927, 80

- Work of the Agricultural Experiment Station, Report of the Director for the Year Ending: June 1932, 83; June 1933, 83; June 1934, 84; June 1935, 84
- with Trowbridge, E. A. and Hackedorn, H.  
Rations for Fattening Western Yearling Sheep, 74
- with Trowbridge, P. F.  
Inspection and Analysis of Commercial Fertilizers, 1914, 74  
Inspection of Commercial Fertilizers, 73, 74  
Inspection of Commercial Fertilizers, 1915, 75
- with Trowbridge, P. F., Haigh, L. D., Moulton, C. R., Jones, A. A., Morgan, L. E., Vanatta, E. E., and Watkins, W. I.  
Inspection and Analyses of Commercial Fertilizers, 73
- with Weaver, Luther A.  
Forage Crop Rotations for Pork Production, 74
- with Willson, C. A.  
Pork Production With Forage Crops, 73  
*See also* Brody, Samuel
- Muns, Walden E.**  
Headache—a Symptom: Its Causes, Prevention, and Cure, 65
- Murneek, Andrew E.**  
Apple Pollination: An Evaluation of Methods and Pollenizers, 110  
Biochemical Studies of Photoperiodism in Plants, 116  
Factors Affecting Size and Color of Fruit, With Reference to Apples and Peaches, 87  
Fertilizing Fruit Trees With Nitrogen, 84  
Fruit Pollination, 81  
Fruit Thinning in Missouri, 80  
Nature of Shedding of Immature Apples, 112  
New Practices to Regulate the Fruit Crop, 86  
Nitrogen and Carbohydrates Distribution in Organs of Bearing Apple Spurs, 107  
Physiology of Reproduction in Horticultural Plants:  
I. Reproduction and Metabolic Efficiency in the Tomato, 105  
II. The Physiological Basis of Intermittent Sterility With Special Reference to the Spider Flower, 106  
Pollination and Fruit Setting, 85  
Quantitative Distribution of Nitrogen and Carbohydrates in Apple Trees, 120
- with Baker, H. H.  
Preparing Apples for Market and Their Sale, 100
- with Gomez, E. T.  
Influence of Length of Day (Photoperiod) on Development of the Soybean Plant, var. Biloxi, 114
- with Heinze, P. H.  
Speed and Accuracy in Determination of Total Nitrogen: The Use of Selenium and Other Catalysts, 115
- with Hibbard, Aubrey D.  
Substitutes for Nitrogen Fertilizers in Orcharding, 98
- with Logan, J. C.  
Autumnal Migration of Nitrogen and Carbohydrates in the Apple Tree, With Special Reference to Leaves, 110
- with Yocum, W. W. and McCubbin, E. N.  
Apple Pollination Investigations, 108  
*See also* Heinze, P. H.  
Long, J. H.  
Schowengerdt, G. C.  
Smith, George E.
- Murray, E. P.**  
*See* Cox, G. H.
- Nagel, Werner O.**  
— with Bennitt, Rudolf  
Feeding Stations and Shelters for Quail on Missouri Farms, 134, 136
- with Clark, Marion W.  
Improvement of Farm Ponds and Watersheds for Erosion Control and Wildlife Production, 134, 135  
*See also* Bennitt, Rudolf
- Nahm, Laura J.**  
— with McKenzie, Fred F.  
Cells of the Adrenal Cortex of the Ewe During the Estrual Cycle and Pregnancy, 115
- Nance, Gordon B.**  
Agricultural Outlook for Missouri: 1942, 142; 1943, 143; 1944, 143  
*See also* Ragsdale, Arthur C.
- Nash, Vernon**  
What Is Taught in Schools of Journalism, 54
- Neal, Jesse H.**  
Effect of the Degree of Slope and Rainfall Characteristics on Run-off and Soil Erosion, 116
- Neal, Robert M.**  
Deskbook of the School of Journalism, Sixteenth Edition, 57
- Neale, M. G.**  
School Building Program for Columbia, Missouri, 44

- School Building Program for Joplin, Missouri, 44  
 — with Eubank, L. A., Miller, J. C., Frye, E. E., and Martin, C. W.  
 School Building Program for Springfield, Missouri, 45  
 — with Saam, Theodore  
 School Building Program for Moberly, Missouri, 45
- Needles, Enoch R.**  
 Engineer Looks Ahead, address, 154
- Nelson, D. H.**  
 — with Reid, William H. E.  
 Effect of Different Percentages of Butterfat on the Physical Properties of Ice Cream, 104  
*See also* Reid, William H. E.
- Nelson, D. M.**  
*See* Trowbridge, P. F.
- Nelson, Earl F.**  
 Partition Where Life Estates and Remainders Are Involved, 60  
 Restraints on Alienation in Missouri, 59
- Nelson, John B.**  
 Normal Immunity Reactions of the Cow and the Calf With Reference to Antibody Transmission in the Colostrum, 104
- Neuman, L. M.**  
*See* Tarr, William Arthur
- Newman, H. G.**  
*See* Connaway, John W.
- Newton, Guy D.**  
 Energy Necessary to Shear Steel at High Temperatures, 46
- Nibler, C. W.**  
*See* Turner, Charles W.
- Nierman, John L.**  
*See* Hogan, Albert G.
- Nisbet, Ruth**  
*See* Brody, Samuel
- Norlin, George**  
 Odious Comparison (Phi Beta Kappa Address), 64
- Norville, Mrs. H. O.**  
 List of Articles on Engineering Education, 151
- Noyes, Charles E.**  
*See* Ainsworth, Edward G.
- Noyes, Guy L.**  
 Relation of Sight and Hearing to Early School Life, 65
- Nutting, Charles B.**  
 Legislative Practice Regarding Tort Claims Against the State, 62
- Oberlin, R. W.**  
 Cobblestone Construction for Farm Buildings, 132
- Water and Sewage Disposal Systems for Farm Homes, 130  
*See also* Regan, Maurice J.  
 Winton, Berley  
 Wooley, John C.
- O'Harra, B. M.**  
 Bibliography on the Electrothermic Metallurgy of Zinc, 156  
 Bibliography on Zinc Retorts and Condensers, 157  
 Briquetting of Zinc Ores, 156  
 — with Wheeler, E. S.  
 Experiments on the Distillation of Zinc From Complex Zinc-Lead-Silver Ores, 156  
*See also* Zeller, G. A.
- Olmstead, Albert Ten Eyck**  
 Assyrian Historiography: A Source Study, 12
- O'Mara, Joseph G.**  
 Cytogenetic Study of Zea and Euchlaena, 120
- Orfield, Lester B.**  
 History of Criminal Appeal in England, 61  
 Resume of Decisions of the United States Supreme Court on Federal Criminal Procedure, 63
- Oshel, O. I.**  
*See* Eckles, C. H.
- Page, E. M.**  
 Demonstration Work With Potatoes in Missouri, 126  
 Increasing Potato Yields, 127  
 Tomato Plant-Bed Spraying, 141  
 — with Fyfer, Mrs. J. K.  
 Potato Growing Club, 145  
 Tomato Growing, 145
- Painter, W. E.**  
*See* Reid, William H. E.
- Palmer, Leroy S.**  
 Yellow Color in Cream and Butter, 92  
 — with Cooleedge, Leslie H.  
 Lactochrome, the Yellow Pigment of Milk Whey: Its Probable Identity With Urochrome, the Specific Yellow Pigment of Normal Urine, 101  
 Preservation of Milk for Chemical Analysis, 102  
 — with Eckles, C. H.  
 Carotin, the Principal Natural Yellow Pigment of Milk Fat:  
 I. Review of the Literature Concerning the Yellow Plant and Animal Pigments, 101  
 II. Chemical and Physiological Relations of Pigments of Milk Fat to the Carotin and Xanthophylls of Green Plants, 101



- III. The Pigments of the Body Fat, Corpus Luteum and Skin Secretions of the Cow, 101  
 IV. (A) The Yellow Pigment of Blood Serum; (B) Carotin and Xanthophylls During Digestion; (C) The Pigments of Human Milk Fat; 101  
*See also* Eckles, C. H.
- Pancoast, Carrie L.**  
 Farm Kitchen, 123  
 Pickles and Relishes, 123
- Paquin, Paul**  
 Black Leg: Gaseous Charbon, Symtomatic Anthrax, Bacterian Anthrax, 70  
 Contagious Pleuro-Pneumonia, 69  
 Generalities and Experiments in Spaying Cattle, Appendix on Glanders, 70  
 Glanders, Mad Itch of Cattle, Etc., 69  
 Glanders: Second Report of the State Veterinarian, 69  
 Report of the State Veterinary Inspector, 69  
 Texas Fever and Other Diseases, 69  
 Texas Fever: Investigations Between September 1888 and March 1890, 70
- Park, Albert**  
*See* Harris, Elmo G.
- Parker, Jesse E.**  
 — with McKenzie, F. F. and Kempster, H. L.  
 Fertility in the Male Domestic Fowl, 120  
*See also* Kempster, Harry L.
- Parks, James Lewis**  
 Attempted Acceptance of a Deceased Offeror's Offer, 59  
 Contracts for the Benefit of Third Persons, 59  
 Declarations of Trusts and the Statute of Uses, 58  
 Domicile of a Married Woman, 59  
 Jurisdiction to Divorce, 59  
 Some Problems in Jurisdiction to Divorce, 60  
 Transfer of Property by a Pledge, 58  
 Ultra Vires Transactions (in two parts), 58
- Parks, Ralph R.**  
 Electric Hotbeds, 82  
 Use of Electricity on Missouri Farms, 80  
 — with Wooley, John C.  
 Relation of Electricity to Missouri Agriculture, 95
- Patterson, Don D.**  
 Journalism of China, 53
- Patterson, Edwin W.**  
 Scope of Restitution and Unjust Enrichment, 61
- Paulling, John R.**  
 Soybeans for Grain, 137  
 Thick Spacing of Cotton for Missouri, 142  
 — with Clark, M. W. and Ricketts, R. L.  
 Homemade Field Cultivators, 139  
 — with Clough, Robert S.  
 Growing Soybeans in Missouri, 148  
 — with Martin, Theodore T.  
 4-H Cotton Club, 147  
*See also* Ragsdale, Arthur C.
- Peck, Ralph H.**  
 Farm Forestry: I. Forest Appreciation, Revised, 147  
 Wood for War Emergency Fuel, 98  
 — with Martin, Theodore T.  
 Farm Forestry: II. Forest Seeding and Planting, 147  
 — with Sechrist, W. C. and Leach, C. W.  
 Marketing Missouri Farm Timber Crops, 88  
*See also* Sechrist, William C.
- Peck, Raymond**  
*See* Branson, Edwin B.
- Perkins, Albert T.**  
 Sportsmanship in Business and Public Life, address, 151
- Perry, Stuart H.**  
 — with White, Edward J.  
 Newspapers and the Courts, addresses, 54
- Peterson, H. K.**  
*See* Harris, Elmo G.
- Peterson, V. E.**  
*See* Reineke, Ezra P.
- Pew, Marlen E.**  
 Local Government and the Press, address, 55
- Phillips, Ralph W.**  
 — with McKenzie, Fred F.  
 Thermo-Regulatory Function and Mechanism of the Scrotum, 113
- Phillips, Virgil W.**  
 — with Ashworth, U. S., Brody, S. and Johnson, S. R.  
 Growth and Development, With Special Reference to Domestic Animals:  
 XXV. The Course of Energy and Nitrogen Metabolism in the Domestic Fowl During 48-Day Fasts; With Special Reference to Temperament and Training of the Birds; Notes on 60-Day Fasts in Swine; 111
- Pihlblad, C. Terence**  
*See* Gist, Noel P.

- Pike, James A.**  
Personal Names as Trade Symbols, 61
- Pilcher, Robert W.**  
See Hogan, Albert G.
- Pocsabay, Johann**  
Scientific Fundamentals of Gravity Concentration, Translation of, 157
- Poehlman, John M.**  
Growing Good Crops of Oats in Missouri, 88  
Study of the Relative Adaptation of Certain Varieties of Soybeans, 115
- Pope, Jesse Eliphalet**  
Clothing Industry in New York, 12
- Portman, R. W.**  
See Haseman, Leonard
- Potter, Peter**  
Topography of the Thorax and Abdomen, 12
- Pound, Cuthbert W.**  
Law School Curriculum as Seen by the Bench and the Bar, 58
- Powell, J. B.**  
Building a Circulation: Methods and Ideals for Small-Town Newspapers, 52  
Newspaper Efficiency in the Small Town, 52
- Powell, M. E.**  
See Reid, William H. E.
- Powell, Robert E.**  
— with Anderson, Dean C.  
1940 Report of the Yield Trials With Corn Hybrids and Varieties in Missouri, 142  
See also Anderson, Dean C.
- Procter, Robert C.**  
— with Brody, S., Jones, M. M., and Chittenden, D. W.  
Growth and Development, With Special Reference to Domestic Animals: XXXIII. Efficiency of Work Horses of Different Ages and Body Weights, 113  
See also Brody, Samuel
- Prouty, Charles T.**  
George Gascoigne's *A Hundreth Sundrie Flowres*, 10
- Pyle, William Henry**  
Abnormal and Defective Children, 48  
Manual for the Mental and Physical Examination of School Children, 48; Revised Edition, 48
- Quinn, J. T.**  
Bermuda Onion Culture, 129  
Bermuda Onion Culture in Missouri, 94
- Controlling Potato Diseases, 130  
Controlling Potato Diseases by Seed Treatment, 128  
Hotbeds and Coldframes, 129, 132  
Planning and Planting the Vegetable Garden, 129  
Potato Growing in Missouri, 79  
Tomato Culture in Missouri, 78  
— with Talbert, Thomas J.  
Better Methods of Potato Production, 129, 131  
Vegetable Growing in Missouri, 95
- Ragsdale, Arthur C.**  
Feed Consumption of Dairy Cattle During Growth, 83  
Feeding Dairy Cattle, 81  
Feeding Dairy Cows, 94  
Growth Standards for Dairy Cattle, 83  
Profitable Dairy Herds Thru Cow Testing, 123  
Selection and Management of the Dairy Bull, 94  
Variations in Cream Tests, 95  
Winter Rations for Dairy Heifers, 94  
— with Brody, Samuel  
Estimating Live Weights of Dairy Cattle, 84  
— with Gifford, Warren  
Care, Feeding, and Management of the Dairy Sire, 81  
Selecting the Dairy Sire, 81  
— with Herman, Harry A.  
Legumes, Grasses, and Cereal Crops for Silage, 97  
— with Nance, G. B., Crosby, J. E., Paulling, J. R., Herman, H. A., Regan, M. J., Frame, B. H., Turner, C. W., Itschner, E. T., Reid, W. H. E., Garrison, E. R., Swanson, E. W., and Haag, H. M.  
Dairy Action Program for Missouri, Including the Dairy Industry 8-Point Program for 1944 and 1945, 100  
— with Regan, Maurice J.  
Growth and Development, With Special Reference to Domestic Animals: XIV. (a) Measurements of Growing Holstein and Jersey Cattle on Missouri Farms, 108  
— with Trowbridge, E. A. and Kempster, H. L.  
Rations for Livestock and Poultry, 98  
— with Turner, Charles W.  
Official Testing of Dairy Cattle, 93

- Silage Investigations: Loss of Nutrients in the Silo and During the Field Curing of Corn, 104  
*See also* Brody, Samuel  
 Green, R. M.  
 Herman, Harry A.  
 Ralston, N. P.  
 Swett, W. W.  
 Trowbridge, Edwin A.  
 Turner, Charles W.  
 Washburn, Lloyd E.  
 Wooley, John C.
- Ralston, N. P.**  
 — with Cowser, W. C., Ragsdale, A. C., Herman, H. A., and Turner, C. W.  
 Yield and Composition of the Milk of Dairy Cows and Goats as Influenced by Thyroxine, 118-119
- Ramsay, Robert L.**  
 — with Emberson, Frances Guthrie  
 Mark Twain Lexicon, 9  
 — with Read, A. W. and Leech, E. G.  
 Introduction to a Survey of Missouri Place-Names, 9
- Ramsey, Mary Louise**  
 States' Rights and the Wagner Act Decisions, 61
- Ravenel, Mazyck P.**  
 House Fly, 48  
 Preventive Medicine: Its Accomplishments and Its Aims, 65
- Rawlings, Brown R., Jr.**  
 — with Johnson, Oliver R.  
 Relationship of Productivity of Farm Units and Their Ability to Pay Rent, 118
- Read, Allen Walker**  
*See* Ramsay, Robert L.
- Reavis, George W.**  
 Grain Judging for Boys' and Girls' Clubs, 124  
*See also* Emberson, R. H.
- Record, Samuel J.**  
 Forest Conditions of the Ozark Region of Missouri, 73
- Redford, Mrs. W. O.**  
*See* Meyer, A. J.
- Reece, R. P.**  
 — with Turner, Charles W.  
 Lactogenic and Thyrotropic Hormone Content of the Anterior Lobe of the Pituitary Gland, 116
- Reed, George M.**  
 Covered or Stinking Smut of Wheat, 140  
 Powdery Mildews of Avena and Triticum, 102  
 Varietal Resistance and Susceptibility of Oats to Powdery Mildew, Crown Rust, and Smuts, 102
- Reed, Howard S.**  
 On the Planting and Care of Trees for the Street and Lawn, 90  
 Three Fungous Diseases of the Cultivated Ginseng, 72
- Reed, O. E.**  
*See* Eckles, C. H.
- Reese, Herbert Meredith**  
 Astronomy, 66
- Regan, Maurice J.**  
 — with Cloninger, William H.  
 Improved Milk Production in Small Herds, 138  
 — with Crosby, James E., Jr.  
 Winter Rations for Dairy Cows, 131  
 — with Gifford, Warren  
 Rations for Dairy Cows, 134, 136  
 — with Gifford, W., Martin, T. T., and Itschner, E. T.  
 4-H Dairy Club, 148  
 — with Oberlin, R. W.  
 Missouri Type Milk Houses, 131  
 — with Reid, William H. E.  
 Cottage Cheese and Yellow Cream Cheese Made on the Farm, 138  
 Making Cheddar Cheese on the Farm, 138  
 Making Quality Butter on the Farm, 138  
 — with Stephens, A. F. and Martin, T. T.  
 Dairy: I, II, and III, (three bulletins), 146  
*See also* Crosby, James E., Jr.  
 Jopling, Letha Knight  
 Miller, Merritt F.  
 Ragsdale, Arthur C.  
 Ricketts, Ralph L.
- Reid, William H. E.**  
 Deleterious Effect of Freezing on Several of the Physical Properties of Milk, 106  
 Effect of Different Pasteurization Temperatures on Several of the Physical Properties of Milk, 107  
 Effect of the Sugar Content in the Manufacture of Commercial Ice Cream, 104  
 Relation of Different Ingredients of Ice Cream to Its Freezing and Supercooling Points, 116  
 Relation of Several Ingredients to the Manufacture of Commercial Ice Cream, 95  
 — with Alley, H. R.  
 Manufacture of Cream Cheese Involving the Use of Dry Skim Milk, 96  
 Relation of Dry Skim Milk to Several of the Physical and Chemical Properties of Cream Cheese, 113  
 — with Arbuckle, W. S.

- Effect of Serving Temperature Upon Consumer Acceptance of Ice Creams and Sherbets, 116
- Effect of Temperature Upon Score Value and Physical Structure of Butter, 86
- with Brock, R. L.
- Disturbances in the Natural Oxidation-Reduction Equilibrium of Milk With Special Reference to the Use of the Dehydrated Milks in the Manufacture of Cottage Cheese, 113
- with Cooley, R. J. and Arbuckle, W. S.
- Replacing Cane Sugar With Variable Increments of Dextrose and Cerelose Sugar in the Ice Cream Mix and Its Effect Upon the Physical and Chemical Properties of Ice Cream at Different Serving Temperatures, 119
- with Decker, C. W.
- Effect of Different Increments of Sucrose and Dextrose on the Freezing Procedures, Mix Compositions, Stability, and Internal Structure of Ice Cream, 121
- with Decker, C. W. and Arbuckle, W. S.
- Relation of Acidity, Solids per Gallon, and Different Sources of Serum Solids to the Physical and Chemical Properties of High Serum Solids Ice Cream, 119
- with Drew, R. J. and Arbuckle, W. S.
- Effect of Composition and Serving Temperature Upon Consumer Acceptance and Dispensing Qualities of Ice Cream, 118
- with Eckles, W. C.
- Manufacture of Whipped Cream Using Dry Skim Milk, 96
- Relation of Dry Skim Milk to Several of the Physical and Chemical properties of Whipped Cream, 113
- with Fleshman, C. L.
- Relation of Dry Skim Milk to the Physical and Chemical Properties of Cottage Cheese, 111
- with Garrison, Earl R.
- Effect of Processing Ice Cream Mixtures at Different Pressures When the Milk Solids not Fat Content Is Varied, 107
- with Hales, M. W.
- Relation of the Freezing Procedure and the Composition of the Mixture to the Physical and Crystalline Structure of Ice Cream, 113
- with Minert, K. R.
- Effect of Dextrose and Sucrose Sugars Upon the Properties of Ice Cream, 120
- with Moseley, W. K.
- Effect of Processing on the Dispersion of Fat in an Ice Cream Mixture, 105
- with Nelson, D. H.
- Effect of Several Ingredients Used in the Manufacture of Commercial Ice Cream on the Change in Temperature During the Freezing Process, 104
- with Painter, W. E.
- Freezing Properties, Stability, and Physical Qualities of Chocolate Ice Cream, 111
- with Powell, M. E.
- Sandiness in Nut Ice Creams, 111
- with Russell, L. B.
- Effect of Different Homogenization Processes on the Physical Properties of an Ice Cream Mixture and the Resulting Ice Cream When the Percentage of Fat Is Varied and the Solids not Fat Remain Constant, 108
- with Scism, S. F.
- Effect on the Viscosity, Bacterial Flora, and Quality of the Resulting Ice Cream When the Ice Cream Mixture is Re-emulsified, Re-visedcolized, or Re-homogenized, 105
- with Skinner, G. R.
- Effect of Homogenization at Different Pressures on the Physical Properties of an Ice Cream Mixture and the Resulting Ice Cream, 107
- with Smith, L. E.
- Effect of Cultures and the Relation of Acid Standardization to Several of the Physical and Chemical Properties of Ice Cream, 120
- with Welch, F. F.
- Factors Influencing Properties of Fermented Reconstructed Milk, 108
- See also Cooley, R. J.  
Decker, C. W.  
Mull, L. E.  
Nelson, D. H.  
Ragsdale, Arthur C.  
Regan, Maurice J.  
Thomsen, Frederick L.
- Reineke, Ezra P.**
- with Peterson, V. E., Houchin, O. B., and Turner, C. W.
- Studies on the Blood Precursors of Milk Protein, 117

- with Turner, Charles W.  
Formation in Vitro of Highly Active Thyroproteins: Their Biologic Assay and Practical Use, 121  
*See also* Turner, Charles W.
- Rhoades, Harold F.**  
Handling Farm Manure, 131
- Richards, Preston**  
— with Thomsen, Frederick L.  
Marketing Stock Hogs in Missouri, 109, 130  
— with Thomsen, F. L. and Burch, J. W.  
Seasonal Variation in Feed Prices, 129  
*See also* Thomsen, Frederick L.
- Richardson, Luther R.**  
— with Hogan, Albert G.  
Skin Lesions of the Rat Associated With the Vitamin B Complex, 114  
— with Hogan, A. G. and Itschner, K. F.  
Vitamin B<sub>6</sub>, Pantothenic Acid, and Unsaturated Fatty Acids as They Affect Dermatitis in Rats, 119  
— with Hogan, A. G. and Miller, O. N.  
Relation of Biotin to Perosis in Chicks, 120  
*See also* Hogan, Albert G.
- Rickett, H. W.**  
Flora of Columbia, Missouri, 8  
Wild Flowers of Missouri, Illustrations for, 134  
*See also* Zirkle, R. E.
- Rickett, Theresa C.**  
Wild Flowers of Missouri, a Guide for Beginners, 134
- Ricketts, Ralph L.**  
— with Clark, Marion W.  
Temporary Silos, 140  
— with Clark M. W. and Regan, M. J.  
Homemade Stock Tank Heaters, 139  
*See also* Clark, Marion W.  
Itschner, E. T.  
Paulling, John R.  
Wooley, John C.
- Riggs, John**  
*See* Brody, Samuel
- Rinkle, L. G.**  
Cottage Cheesemaking, 124  
Directions for Testing Cream, 92  
Farm Cheesemaking, 123
- Ritchie, Walter S.**  
— with Moulton, C. R., Trowbridge, P. F., and Haigh, L. D.  
Studies in Animal Nutrition: IV. The Nitrogen, Ash, and Phosphorus Distribution in Beef Flesh as Affected by Age and Condition, 103  
*See also* Hogan, Albert G.  
Mumford, Frederick B.
- Robbins, William J.**  
Isoelectric Point for Plant Tissue and Its Importance in Absorption and Toxicity, 7  
Precipitation and the Growth of Oaks at Columbia, Missouri, 103
- Roberts, R. Warren**  
*See* Williams, W. S.
- Roberts, W. Lewis**  
Depreciation as an Element in Public Utility Valuation, 60
- Robertson, Don D.**  
— with Baker, Dan D.  
Histological Differences in the Muscles of Full, Half, and Rough Fed Steers, 112
- Robinson, Mary E.**  
Alteration of Commercial Patterns, 134  
Altering Commercial Patterns, 129  
Cleaning Clothes, 130  
Color in Dress, 131, 136  
Dress Fitting and Cutting, 125  
Dry Cleaning at Home, 132, 135  
Healthful Clothes for Children, 140  
Home Millinery, 128  
How to Pad a Dress Form, 124  
How to Save Sugar, 124  
How to Select and Store Household Linens, 123  
If You Would Learn to Sew, 134  
Patching and Darning, 130  
Principles of Sewing, 123  
Sewing Processes, 125  
— with Hinote, Jane  
Clothing Club: I. Clothes and How to Care for Them, 146  
*See also* Bennett, Freida Mae  
Heyle, Essie M.
- Robinson, Rodney Potter**  
Philological Studies in Honor of Walter Miller, 9
- Rocheford, Julia M.**  
Homemade Rugs, 133  
Making the Farm Grounds Attractive, 128  
Parliamentary Procedure for Farm Groups, 143  
Renovation of Household Furnishings, 126  
— with Fitzgerald, Madonna  
Growing Annuals to Beautify the Home Grounds, 137  
Making the Farm Grounds Attractive, 135, 137  
— with Fitzgerald, M. and Sontag, M.  
Perennial Plants for Beautifying the Home Grounds, 138

- with Hinote, Jane  
More Attractive Homes Club:  
I. The Home Grounds, 147  
II. The Bedroom, 147
- Rodekohr, E. J.**  
See Meyer, A. J.
- Rodhouse, T. J.**  
Preliminary Study Relating to the  
Water Resources of Missouri, 46  
Study Relating to the Water Re-  
sources of Missouri, 47
- Roesler, H. A.**  
See Copeland, D.
- Rohde, C. E.**  
Quality Egg Production and Mar-  
keting, 136  
War Time Production of Poultry  
and Eggs, 137  
— with Huff, Kenneth B.  
Low Cost Poultry Housing, 137  
Poultry House Remodeling, 135  
— with Martin, T. T. and Itsch-  
ner, E. T.  
Farm Poultry Management, 148  
— with Moyer, D. D.  
Turkey Production in Missouri, 135  
See also Carl, Flora L.  
Itschner, E. T.  
Jones, Mack M.
- Roland, W. E.**  
See Haseman, Leonard
- Root, Addie D.**  
Canning by the One-Period Cold  
Pack Method, 124  
Drying Fruits and Vegetables, 123  
Garment Making Club, Number  
One, 125  
Making a Simple Wash Dress and  
Middy Blouse, 124  
Making Light Bread, 123, 125  
See also Bell, Bab  
Emberson, R. H.
- Rosa, J. T., Jr.**  
Better Methods of Tomato Pro-  
duction, 77  
Controlling Soil Moisture for Veg-  
etable Crops in Missouri, 78  
Growing Late Potatoes, 93  
Growing Tomatoes for the Can-  
ning Factory, 93  
Home Vegetable Garden as a Busi-  
ness Proposition, 77  
Investigations on the Hardening  
Process in Vegetable Plants, 103  
Potato Culture for Missouri, 124  
Profitable Tomato Fertilizers, 76  
Seed Potatoes for Better Yields,  
93  
Seed Studies With Irish Potatoes,  
77  
Spraying Irish Potatoes, 77  
Storing Vegetables, 124
- Sweet Potato Culture in Missouri,  
93
- Roselle, R. E.**  
— with Haseman, Leonard  
Controlling Fleas, 97
- Ross, A. Frank**  
— with Vinson, C. G.  
Mosaic Disease of Tobacco: Action  
of Proteoclastic Enzymes on the  
Virus Fraction Nature of the Vi-  
rus Fraction From Various Spe-  
cies of Plants, 115
- Ross, Charles G.**  
Deskbook of the School of Journal-  
ism, Fifth Edition, 52  
News in the County Paper, 52
- Ross, P. H.**  
Annual Report of Agricultural Ex-  
tension Service, 1920, 144  
Emergency Agricultural Agent, 123  
Extension Projects in Agriculture  
and Home Economics, 1923, 144  
How the College of Agriculture  
Serves Missouri Farmers Thru  
the Agricultural Extension Ser-  
vice, 125
- Roth, Walter J.**  
See Hammar, Conrad H.
- Routien, J. B.**  
See Tucker, Clarence M.
- Rucker, Frank W.**  
— with Herbert, B. S. and Stone-  
braker, J. N.  
Small-Town Newspaper as a Busi-  
ness, 53
- Rusk, H. P.**  
See Doneghue, R. C.
- Russell, L. B.**  
See Reid, William H. E.
- Russell, S. F.**  
— with Martin, Theodore T.  
Ewe and Lamb Club, 145
- Saam, Theodore**  
See Neale, M. G.
- St. John, Norman**  
See Haag, Herman M.
- Salmon, W. D.**  
See Hogan, Albert G.
- Sanborn, J. W.**  
Corn Fodder as Stock Food, 69  
Corn Harvesting, 69  
Data Regarding Several Economic  
Problems in Ordinary Farm Prac-  
tice, 69  
Experimental Farming, 69  
Experiments on Feeding Ensilage  
Against Dry Fodder, 70  
Experiments on Green Versus Dry  
Storage of Fodder, 70  
Feeding for Flesh, 69

- Feeding for Lean Meat (two bulletins), 69
- Feeding Pigs, 69
- Feeding Steers, 69
- Feeding Wheat and Corn, 69
- Fertilization, 69
- General Observations, 69
- Good Roads and Broad Wheel Tires, 69
- Grasses for Pastures and for Meadows, 69, 70
- Grass-Fed Pigs, 69
- List of Tillage Implements, 70
- Maintenance Rations for Pigs, 69
- Meal Feeding Stock at Pasture, 69
- Mulching, 69
- Pig Feeding Experiments, 69
- Plows and Plowing, 69
- Relation of Dew to Soil Moisture (two bulletins), 69
- Relation of Tillage to Soil Moisture, 69
- Report of Test of Varieties of Wheat and Corn, 69
- Rotation of Crops, 69
- Seed Potatoes, 69
- Subsoiling, 69
- Sandburg, Mrs. Carl**  
See Brody, Samuel
- Saupe, Walter J.**  
Classification of Pupils in a Junior High School, 44
- Schiffman, Edward G.**  
— with Haag, Herman M.  
Farmers' Co-operative Marketing and Purchasing Associations in Missouri, 85
- Schlundt, Herman**  
See Barker, Howard H.
- Schnebly, Merrill Isaac**  
Operative Facts in Surrenders (in two parts), 59
- Schott, Emmett Lee**  
Study of High School Seniors of Superior Ability, 44
- Schowengerdt, G. C.**  
— with West, D. C.  
Factors Among Cull Apples in Missouri, 82  
— with West, D. C. and Murneek, A. E.  
Causes of Cull Apples, 83
- Schowengerdt, P. F.**  
Liming Materials, 126, 127  
Liming Missouri Soils, 126
- Schrenk, W. T.**  
See Day, Thomas Gordon  
Zvanut, F. J.
- Schroeder, Raymond A.**  
Effect of Root Temperature Upon the Absorption of Water by the Cucumber, 118
- with Anderson, J. W. C. and Talbert, T. J.  
Growing Potatoes, 97  
— with Swartwout, Harold G.  
Fertilizers for Vegetable Crops, 96  
— with Talbert, Thomas J.  
Growing Fall Gardens, 134  
— with Talbert, T. J. and Anderson, J. W. C.  
Hotbeds and Coldframes, 135
- Schultz, Andrew B.**  
See Turner, Charles W.
- Schutz, Alexander Herman**  
Peasant Vocabulary in the Works of George Sand, 7
- Schweiter, L. H.**  
See Haag, Herman M.
- Schweitzer, Paul**  
Announcement to Farmers, the So-called "Hatch Bill," Assent of Governor, Plan of Organization, Work and Experiments Proposed This Season, Personnel of Station, 70  
Chinch-Bugs and Their Extermination, 90  
Comparative Tests of Different Breeds of Beef Cattle, 70  
Enquiry Into the Composition of the Flesh of Cattle, 70  
Enquiry Into the Principles of Potato Growing, and Tests of Varieties, 71  
Feeding Tests With Different Breeds of Beef Cattle, 71  
Feeding Wheat to Pigs, 71  
Soil, Weather, Field Trials With Corn, 70  
Soils and Fertilizers (in two parts), 70  
Study of the Life History of Corn at Its Different Periods of Growth, 70  
— with Bird, R. M.  
Analyses of Commercial Fertilizers (two bulletins), 72  
See also Marx, C. W.  
Mumford, Frederick B.
- Scism, S. F.**  
See Reid, William H. E.
- Scott, Fred Newton**  
Congress of Letters (Phi Beta Kappa Address), 64
- Scott, Helen Jo**  
Missouri Alumni in Journalism: A Directory of Graduates and Former Students, Fifth Edition, 54
- Scott, Irl T.**  
Influence of Hydrogen-Ion Concentration on the Growth of *Fusarium Lycopersici* and on Tomato Wilt, 104

- Some Protein Analogies of the Mycelium of *Fusarium Lycopersici*, 105  
 Varietal Resistance and Susceptibility to Wheat Scab, 107
- Seares, Frederick H.**  
 Algol Variable 188.1904 Draconis, 42  
 Algol Variable RR Draconis (188.1904); Preliminary Announcement Concerning the Algol Variable 121.1906 Draconis; 42  
 Announcement of Preliminary Results for Variable Stars, 42  
 Finding Ephemerides for Comet 1894 IV (E. Swift), 42  
 Grant From the Gould Fund; General Remarks Concerning Variable Star Observations; A New Variable, 88.1906 Lacertae; Preliminary Results for V Lacertae, 110.1904; The Variable V Vulpeculae, 4.1904; Preliminary Note on Variable 108.1905 Capricorni; 42  
 Long-Period Algol Variable RZ Ophiuchi (103.1905); Preliminary Announcement Concerning SW Andromedae (5.1907); 42  
 Observations and Elements of Comet *b* 1902 (Perrine), 42  
 Observations of Comet *a* 1904 (Brooks), 42  
 Observations of Comet *e* 1904 (Borrelly); Photometric Observations of *Nova Geminorum* Ch. 2387; Special Time Signals From the U. S. Naval Observatory; 42  
 Observations of Comets, 42  
 Photometric Investigations, 42  
 Polaris Vertical Circle Method of Determining Time and Azimuth, 42  
 Preliminary Announcements Concerning Variable Stars, 42  
 Zöllner-Müller Photometer; The Gans-Crawford Telescope; The Variable X Lacertae (88.1906); The Variable V Lacertae (110.1904); 42  
 ——— with Haynes, Eli S.  
 Variable RV Tauri (45.1905), 42
- Sears, Ernest R.**  
 Amphidiploids in the Seven-Chromosome *Triticinae*, 120  
 Chromosome Pairing and Fertility in Hybrids and Amphidiploids in the *Triticinae*, 120
- Sears, Kenneth C.**  
 Larceny of Referendum Petitions (in two parts), 58
- Sechrist, William C.**  
 ——— with Peck, Ralph H.  
 Missouri Woods and Wood-Using Industries, 88  
*See also* Peck, Ralph H.
- Selbert, Mrs. Louis**  
 Cause and Treatment of Boils, 140  
 Colds: Their Causes and Treatment, 124  
 Constipation, 140  
 Family Medicine Chest, 140  
 Keeping Physically Fit, 140  
 Temperatures, 140
- Sensintaffar, Lilian**  
*See* Klingner, Mary L.
- Severance, Henry Ormal**  
 Annual Report of the Librarian, 1907; List of Scientific Serials in the Libraries of the University of Missouri; 63  
 Books for Farmers and Farmers' Wives, 64  
 Care of Free Textbooks, 48  
 Check List of the Official Serial Publications of the University, 64; Second and Third Editions, 64  
 Facilities and Resources of the University Library for Graduate Work, 64  
 History of the Library, University of Missouri, 64  
 Library Primer for Missouri High Schools, 64  
 List of Periodicals Currently Received by the University Library, 64; 1926, 64  
 Missouri in the Library War Service, 64  
 Opening Exercises of the New Library Building, January 6, 1916, 64  
 Partial Bibliography and Index of the Publications of the College of Agriculture and the Agricultural Experiment Station, 64, 73  
 Standard Library Organization Suggested for Missouri High Schools, 44  
 Survey of the Resources of the University of Missouri Library for Research Work, 64  
 William Benjamin Smith, Ph.D., LL.D.: A Friend of the University of Missouri Library, 64  
 ——— with Elliott, A. M. and Todd, Ann  
 Missouri Libraries, 1915-1935, 64
- Shafroth, Will**  
 Improving Judicial Administration in the State Courts, 63
- Shapley, Harlow**  
 Antalgol Variable ST Ophiuchi



- (52.1907); New Elements for RW  
Camelopardalis; 42  
Rotating Ellipsoid RU Camelopar-  
dalis, 43  
*See also* Haynes, Eli S.
- Sharp, Eugene W.**  
Censorship and Press Laws of Sixty  
Countries, 56  
International News Communica-  
tions: The Submarine Cable and  
Wireless as News Carriers, 54
- Sharp, H. N.**  
Firing Tests on Missouri Coal, 46
- Shedd, Claude K.**  
Terracing Farm Lands, 130
- Shirky, Samuel B.**  
*See* Miller, Merritt F.  
Mumford, Frederick B.
- Shotwell, W. M.**  
*See* Tascher, W. R.
- Shrader, H. L.**  
Culling the Farm Flock, 128  
Missouri Colony Brooder House,  
127  
Promoting and Judging an Egg  
Show, 128  
— with Martin, Theodore T.  
Poultry Club: II. Flock Manage-  
ment Club, 145
- Shrewsbury, Charles L.**  
*See* Hogan, Albert G.
- Silkett, Ross J.**  
Land and Fiscal Problems in Rey-  
nolds County, Missouri, 119  
Rural Land Use Activities in Mis-  
souri, 86
- Silverman, Louis Lazarus**  
On the Definition of the Sum of a  
Divergent Series, 11
- Simonton, James W.**  
Judicial Control of the Missouri  
Public Service Commission (in  
three parts), 59  
Statutory Covenants for Title in  
Missouri, 59
- Simpson, S. T.**  
Community Livestock Breeding, 123  
Silos and Silage, 123  
Winter's Feed Supply, 124
- Skinner, G. R.**  
*See* Reid, William H. E.
- Smiley, Vivian Xly**  
*See* Dunlap, Howard Leroy
- Smith, C. B.**  
Ten Years of Extension Work Under  
the Smith-Lever Act, 1914-  
1924, 144
- Smith, Dwight D.**  
Soybeans and Soil Conservation, 89  
— with Jones, Mack M.  
Power, Labor, and Machine Costs  
in Crop Production, Linn Coun-  
ty, Missouri, 1930, 112
- See also* Jones, Mack M.
- Smith, Earl B.**  
*See* Thomsen, Frederick L.
- Smith, Gardner**  
Doctrine of Lis Pendens in Legal  
Actions Affecting Land, 60
- Smith, George E.**  
Cropping Systems and Soil Fertil-  
ity, 98  
Sanborn Field: Fifty Years of Field  
Experiments With Crop Rotations,  
Manure, and Fertilizers, 88  
Value of Farm Manure, 98  
— with Murneek, Andrew E.  
Comparative Value of Cyanamid in  
Fertilization of Apple Trees: Soil  
Changes and Tree Response, 116
- Smith, Guy D.**  
Experimental Studies on the De-  
velopment of Heavy Claypans in  
Soils, 113
- Smith, Herbert W.**  
Making the Printed Picture: A  
Treatise on Photoengraving Meth-  
ods, 52  
Picture Plates for the Press: Some  
Mechanical Phases of News and  
Advertising Illustration, 53
- Smith, J. E.**  
Home Flower Gardens, 97
- Smith, L. E.**  
*See* Reid, William H. E.
- Smith, Luther**  
Cytogenetic Studies in *Triticum mon-  
ococcum* L. and *T. aegilopoides* Bal.,  
115  
Mutants and Linkage Studies in  
*Triticum monococcum* and *T. aegilo-  
poides*, 118
- Smith, William Ward**  
Bramble and Bush Fruit Insects, 97  
Strawberry Insects and Their Con-  
trol in Missouri, 89  
— with Jenkins, L. and Hase-  
man, L.  
Study of Codling Moth Abundance  
as Influenced by Crop Failures,  
89  
*See also* Jenkins, Lee
- Smothers, William J.**  
— with Herold, Paul G.  
Study of the Flow Properties of  
Concentrated Clay-Water Mix-  
tures, 158  
*See also* Herold, Paul G.
- Snedeker, Everett H.**  
Security Devices as Preferences Under  
the Bankruptcy Act, 63
- Sneed, Melvin W.**  
— with Ensminger, Douglas  
Rural Church in Missouri, 114  
*See also* Morgan, E. L.

**Snipe, J. Roger**

— with Hammar, Conrad H.  
Economic Aspects of Recreational  
Land Use in the Lake of the  
Ozarks Area, 88

**Sontag, May**

Grooming for 4-H Boys and Girls,  
148

See also Bennett, Freida Mae  
Carl, Flora L.  
Rocheford, Julia M.

**Soule, A. M.**

Dairy Management, 71

**Spalding, F. P.**

Country Roads, Paper Number One,  
Road Drainage, 48

**Sparlin, Estal E.**

Administration of Public Printing  
in the States, 9

**Spence, Elbert L.**

Prevention of Malaria, 65

**Spencer, D. A.**

Co-operative Wool Marketing, 124  
Keep Sheep for Profit, 124

**Spicer, Mildred**

— with Young, L. A. and Kor-  
ando, S.

Use of Consumer Credit by Mis-  
souri Farm Families, 120

**Sprague, G. F.**

Corn Hybrids for Missouri, 97

**Spurrier, Robert L.**

Rights of a Corporation in Missouri  
Against Promoters for Secret  
Profits, 60-61

**Stadler, Lewis J.**

Corn in Missouri, 126  
Experiments in Field Plot Technic  
for the Preliminary Determina-  
tion of Comparative Yields in the  
Small Grains, 103

Fulghum Oats for Missouri, 79  
On the Genetic Nature of Induced  
Mutations in Plants: II. A Haplo-  
Viable Deficiency in Maize, 112

— with Helm, Charles A.  
Corn in Missouri: I. Corn Varieties  
and Their Improvement, 77

— with Jones, M. M., Turner,  
C. W., and Bernard, P. M.  
Production and Feeding of Silage,  
79, 81

— with Kirkpatrick, Roy T.  
Columbia Oats, a New Variety for  
Missouri (two bulletins), 81  
See also Helm, Charles A.

**Stanley, Louise**

Cooking of Vegetables, 122  
Feeding the Baby, 48

— with McDonald, May C.  
Preservation of Food in the Home,  
48

**Stearn, Allen E.**

— with Stearn, Esther Wagner  
Studies in the Physico-Chemical Be-  
havior of Bacteria, 7

**Stearn, Esther Wagner**

See Stearn, Allen E.

**Stearns, Leonard**

See Herold, Paul G.

**Stebbins, Mary E.**

Family Medicine Chest, 127, 129  
Health and Home Care of the Sick:  
I, II, and III, (three bulletins),  
128; I, II, and III, (three bulle-  
tins), 129

Practice of Health, 128, 129

Prevention and Correction of Con-  
stipation, 130

— with Chiles, Sara H.

4-H Health and Sanitation Proj-  
ect, 147

Health and First Aid, 145

— with Hinote, Jane

Health and First Aid Project, 145

**Stedman, J. M.**

Chinch-Bug, 71

Chinch-Bug Infection, 90

Fruit-Tree Bark-Beetle, The Com-  
mon Apple-Tree and Peach-Tree  
Borers, 71

Fruit-Tree Leaf-Roller, 72

Hessian Fly in Missouri, 72

Lesser Apple Leaf Folder, The Leaf  
Crumpler, 71

New Orchard Pest: The Fringed-  
Wing Apple-Bud Moth, 71

San Jose Scale in Missouri, 71, 90

"Sting" in the Apple: The Work  
of the Plum Curculio in the Ap-  
ple, 72

Strawberry False-Worm. The  
Strawberry Leaf-Roller, 71

Tarnished Plant Bug, 71

Woolly-Aphis of the Apple, 71, 90

**Steele, H. B.**

See Ibach, Donald B.

**Steele, Mary Isabelle**

Regeneration of Crayfish Append-  
ages, 11

**Steiner, J. B.**

Eminent Domain Damages, 62  
Excess Condemnation, 61

**Stephens, A. F.**

See Regan, Maurice J.

**Stephens, E. W.**

Missouri Intelligencer and Boon's  
Lick Advertiser: A Brief History  
of the First American Newspaper  
West of St. Louis, 52

**Stephens, Frank Fletcher**

Monroe Doctrine: Its Origin, De-  
velopment, and Recent Interpre-  
tation, 66

- Transitional Period, 1788-1789, in the Government of the United States, 12
- Stewart, Caroline Taylor**  
Origin of the Werewolf Superstition, 12
- Stewart, Oscar Milton**  
Physics, 66
- Stinson, Paul R.**  
*See* McBaine, J. P.
- Stockton, Edward Lee**  
Cross-Connection Survey in Calhoun County, Michigan, 47; Revised, 47
- Stokes, J. S.**  
— with Waters, H. J. and Corner, W. A.  
Common Plants and Their Uses, 69
- Stone, Philip C.**  
Control of Poultry Lice and Mites, 98  
— with Haseman, Leonard  
Chigger and Its Control in Missouri, 97
- Stone, Ruth E.**  
Controlling Clothes Moths and Carpet Beetles in the Home, 99
- Stonebraker, J. N.**  
*See* Rucker, Frank W.
- Sullivan, K. C.**  
Investigation of the Dipping and Fumigation of Nursery Stock, 77  
Pickle Worm and Its Control, 94  
Plant Inspection in Missouri, 93  
Three Years of Dust Spraying Under Missouri Conditions, 80  
*See also* Haseman, Leonard
- Swanson, Eric W.**  
— with Herman, Harry A.  
Nutritive Value of Korean Lespedeza Proteins and the Determination of Biological Values of Proteins for Growing Dairy Heifers, 122  
*See also* Herman, Harry A.  
Ragsdale, Arthur C.
- Swartwout, Harold G.**  
Blackberries and Raspberries, 132  
Blackberries, Raspberries, and Dewberries, 80  
Blackberry, Raspberry, and Dewberry Culture, 79  
Blister and Black Rot Canker, 79  
Establishment and Management of the Vineyard, 130, 134  
Gooseberries and Currants, 79  
Grafting and Budding, 134  
Grape Growing in Missouri, 78  
Growing Gooseberries and Currants, 97  
Propagation by Grafting and Budding, 98  
Pruning the Grape, 130  
Small Fruit Growing in Missouri, 77  
Spraying Grapes, 129, 132  
Spraying Grapes With Special Reference to Black Rot, 97  
— with Martin, William R., Jr.  
Growing Raspberries and Blackberries, 88  
Spray Programs for Family Fruit Plantings, 140  
*See also* Martin, William R., Jr.  
Schroeder, Raymond A.  
Talbert, Thomas J.
- Swett, W. W.**  
Raising Calves on Farms Where Whole Milk Is Sold, 93  
— with Eckles, C. H. and Ragsdale, A. C.  
Minimum Protein Requirement for Growing Dairy Heifers, 104  
*See also* Eckles, C. H.
- Taft, L. R.**  
Report of the Investigations and Observations of the Horticultural Department, 69  
Report of Trials of Varieties of Vegetables and Fruits, 69
- Talbert, Thomas J.**  
Apple Blotch Control in Missouri, 94  
Apple Scab and Its Control, 130  
Cedar Rust of Apples in Missouri, 94  
Combining Dormant and First Summer Spray in Apple Orchards Infested by San Jose Scale, 76  
Commercial Grape Growing in Missouri, 90  
Control of Apple Blotch, 129  
Control of Rodents in the Orchard, 96  
Control of Some of the Important Garden and Truck Crop Insects, 123  
Co-operative Spraying Demonstrations in Missouri Apple Orchards, 1916-1918, 125  
Establishing the Orchard, 97  
Fire Blight of Apples and Pears, 94  
Fruit Sprays and Spraying, 128  
Fruit Varieties for Missouri, 84  
Grafting and Budding Fruit Trees, 129  
Grafting, Budding, and Early Care of Fruit Trees, 79  
Growing Strawberries in Missouri, 97

- Handling Peach Trees After Winter Killing of Fruit Buds, 97
- Handling, Planting, and Early Care of Fruit Trees, 129
- Home Orchard Income, 82
- Missouri Peach Culture, 85
- Missouri Strawberries, 79
- Nut Tree Culture in Missouri, 88
- Peach Culture in Missouri, 88
- Plant Propagation by Seedage, Cuttage, Layerage, and Separation, 96
- Pruning Apple and Pear Trees, 94, 132
- Pruning Apple Trees, 135
- Pruning Stone Fruits: Peaches, Cherries, and Plums, 96
- Rabbit and Mouse Control in the Orchard, 95
- Results of Some Young Apple Tree Pruning Experiments, 118
- Spraying Fruits, 130
- Spraying Missouri Fruits, 78
- Starting the Orchard, 96
- Strawberry Culture in Missouri, 94
- Strawberry Growing in Missouri, 96
- Top and Double Working, and Bridge Grafting of Fruit Trees, 96
- Transplanting Fruit Trees, 79
- with Burroughs, A. M.
- Picking, Handling, and Exhibiting Fruit, 94
- with Haseman, L. and Swartwout, H. G.
- Missouri Apple Spraying: Recommendations for 1934, 96
- Spraying Apples and Peaches: Recommendations for 1937, 134
- Spraying Apples, Peaches, and Cherries, 136
- Spraying Apples, Peaches, and Cherries: Recommendations for 1938, 135
- with Haseman, L., Swartwout, H. G., and Tucker, C. M.
- Missouri Apple Spraying: Recommendations for 1936, 96
- with Hibbard, Aubrey D.
- Commercial Strawberry Culture in Missouri, 97
- Growing Tomatoes for Home Use, 99
- Selecting Fruit Varieties, 87
- Tomato Production in Missouri, 89
- with Hooker, Henry D., Jr.
- Peach Growing in Missouri, 95
- with Merrill, F. S.
- Picking, Packing, and Shipping Apples, 95
- with Swartwout, Harold G.
- Spraying and Dusting Fruits, 131
- Spraying Investigations, 82
- Spraying Tree Fruits, 132
- with Tayloe, W. L.
- Some Results From Feeding Spray Chemicals to Albino Rats, 111
- See also Allen, E. J.
- Faurot, Don
- Quinn, J. T.
- Schroeder, Raymond A.
- Tarr, William Arthur**
- Barite Deposits of Missouri and the Geology of the Barite District, 12
- Origin of Chert and Flint, 7
- with Neuman, L. M.
- Study of the Effects of Heat on Missouri Granites, 46
- Tascher, W. R.**
- with Clark, Marion W.
- Conserving Soil by Strip Cropping, 134
- Conserving Soil With Natural Grass Waterways, 134, 137
- with Kinnaird, R. A., Shotwell, W. M., and others
- Guide for Agronomic and Soil Conservation Planning in Missouri, 143
- See also Clark, Marion W.
- Coleman, Otis T.
- Tayloe, W. L.**
- See Talbert, Thomas J.
- Taylor, Carl C.**
- Social Survey: Its History and Methods, 66
- with Lehmann, E. W.
- Ashland Community Survey: An Economic, Social, and Sanitary Survey in Howard County, Missouri, 76
- Taylor, Henry C.**
- See Miller, Merritt F.
- Tellez, Don Manuel C.**
- Journalism and Diplomacy, addresses, 55
- Terrill, Clair E.**
- See McKenzie, Fred F.
- Thilly, Frank**
- Modern University Problems, address, 67
- Process of Inductive Inference, 11
- Thomas, Wilbur K.**
- Anticipating Requirements, address, 32
- Thomasson, R. R.**
- Agricultural Extension Service, Missouri College of Agriculture, Annual Report: 1932, 132; 1933, 132; 1934, 132
- Farmer and the College: Report of the Extension Service, Missouri College of Agriculture, 1931, 131

- One Year's Progress in Missouri Agriculture: Report of the Extension Service, Missouri College of Agriculture, 1930, 131
- Thompson, Guy A.**  
Program of Missouri Bar Association, 1924, 59
- Thomsen, Frederick L.**  
Co-operation in Missouri Agricultural Adjustment, 95  
Co-operative Marketing of Fruits and Vegetables on the St. Louis Market, 81  
Direct-to-Consumer Marketing of Farm Products, 95  
Factors Affecting Strawberry Prices, 83  
Variations in Local Prices for Farm Products and Supplies in Missouri, 109  
— with Fankhanel, W. R.  
Cost of Marketing Livestock by Truck and Rail, 109  
Factors Affecting Sweet Potato Prices in Missouri, 82  
Livestock Trucking in Missouri, 82  
— with Hensley, Harry C.  
Organizing to Take Advantage of the Federal Agricultural Marketing Act, 130  
Possibilities and Limitations of Co-operative Marketing, 95  
— with Reid, William H. E.  
Developing New Markets for Missouri Butterfat, 80  
Factors Involved in Buying Missouri Cream, 108  
— with Richards, Preston  
Partial Analysis of the Missouri Pig Survey Reports, 108  
— with Smith, Earl B.  
How Missouri Hogs Are Marketed, 84  
— with Thorne, G. B.  
Co-operative Marketing for Missouri, 80  
Economic Position of the Grape Industry in Missouri, 81  
Economics of Strawberry Production and Marketing in Missouri, 80  
— with Winton, Berley  
Consumer Preferences for Egg Yolk Color and Shell Color in New York City, 83  
See also Cowan, Donald R. G.  
Hart, W. J.  
Howell, L. D.  
Richards, Preston
- Thornberry, Martin Harmon**  
Treatise on Missouri Clays Including Production, Occurrence, Types, Analyses, and Softening Points, With Addenda, 157  
— with Mann, Horace Tharp  
Effect of Addition Agents in Flotation:  
Part I. Sulphates, Hydroxides, and Nitrates, 156  
Part II. Chlorides, Acetates, Oxalates, Chromates, Carbonates, Permanganates, etc., 156
- Thorne, G. B.**  
See Thomsen, Frederick L.
- Tillman, B. W.**  
Liming for Clover, 124  
See also Doneghue, R. C.
- Timmons, John F.**  
Landlord-Tenant Relationships in Renting Missouri Farms, 86
- Tisdell, Frederick Monroe**  
Browning's *Aristophanes' Apology*, 7
- Todd, Ann**  
See Severance, Henry Ormal
- Townsend, Loran G.**  
See Carpenter, W. W.
- Townsend, T. S.**  
Demonstration Farm Flocks and Certified Poultry Breeding, 144  
How to Breed Good Layers, 124  
How to Cull Farm Hens, 124, 126  
Missouri Colony Brooder House, 124  
Missouri Plan of Flock Improvement, 125, 126  
Profits From Farm Poultry Flocks in Missouri for 1919, 125  
Saving the Summer Egg, 124  
Winter Eggs for Missouri, 124  
— with Fyfer, Mrs. J. K.  
Poultry Club, I, 145
- Trenholme, Norman Maclaren**  
English Monastic Boroughs: A Study in Medieval History, 7  
Right of Sanctuary in England: A Study in Institutional History, 11
- Trotter, Ide P.**  
Better Practices in Oat Production, 141  
Cotton Varieties for Missouri, 128  
Grain Sorghums for Grain Production, 133  
Growing Cowpeas for Hay, 141  
Millet for Forage and Grain, 141  
Rape for Pasture: Oats and Canada Field Peas for Hay, 141  
Saving Seed From Immature Corn, 133  
Soybeans and Winter Barley in One-Year Rotation, 133  
Testing Seed Corn, 141  
Thick Spacing of Cotton for Missouri, 128

- with Coleman, Otis T.  
How to Use Agricultural Limestone, 129  
Using Limestone on Missouri Soils, 133
- Trowbridge, Edwin A.**  
Corn Versus Oats for Work Mules, 74  
Corn Versus Oats for Work Mules in Missouri, 94  
Feeding and Care of Horses, 91  
Purebred Livestock and the Average Farm, 124  
Silage for Horses and Mules, 92  
Use of a Limited Amount of Molasses in Feeding Yearling Steers, 78
- with Burch, James W.  
Beef Calf Production, 132
- with Chittenden, D. W.  
Horses Grown on Limited Grain Rations, 82
- with Dyer, Albert J.  
Good Pasture and Roughage in Fattening Cattle, 89
- with Ewing, Thomas A.  
Farm Work Mares and Colts, 133
- with Ewing, T. A. and Itschner, E. T.  
4-H Colt Club, Revised, 147
- with Fox, H. D.  
Limited Use of Shelled Corn in Fattening Two-Year-Old Cattle, 78
- with Moffett, H. C.  
Wheat as a Cattle Feed, 83  
Yearling Heifers and Steers for Beef Production, 82
- with Ragsdale, A. C. and Kempster, H. L.  
Proteins for Livestock and Poultry, 100  
*See also* Brody, Samuel  
Chittenden, D. W.  
Cline, Jessie Alice  
Fox, H. D.  
Hogan, Albert G.  
Mumford, Frederick B.  
Ragsdale, Arthur C.  
Wooley, John C.
- Trowbridge, P. F.**  
Farmers' Beef Club, 93  
Hog Butchering and Pork Curing, 123  
Inspection and Analyses of Commercial Fertilizers, 1913, 74  
Inspection of Commercial Fertilizers (two bulletins), 72  
Inspection of Commercial Fertilizers: 1916, 75; 1917, 76  
Inspection of Commercial Fertilizers (Spring Sales), 72
- with Haigh, L. D. and Moulton, C. R.  
Studies of the Timothy Plant: Part II. The Changes in the Chemical Composition of the Timothy Plant During Growth and Ripening, With a Comparative Study of the Wheat Plant, 101
- with Haigh, L. D., Moulton, C. R., Hogan, A. G., Morgan, L. E., Vanatta, E. E., and Nelson, D. M.  
Inspection and Analyses of Commercial Fertilizers, 73
- with Moulton, C. R. and Haigh, L. D.  
Composition of the Beef Animal and Energy Cost of Fattening, 102  
Effect of Limited Food Supply on the Growth of Young Beef Animals, 102  
Maintenance Requirement of Cattle as Influenced by Condition, Plane of Nutrition, Age, Season, Time on Maintenance, Type, and Size of Animal, 101  
*See also* Griswold, D. J.  
Haigh, Leonard D.  
Moulton, C. Robert  
Mumford, Frederick B.  
Ritchie, Walter S.
- Tucker, Clarence M.**  
Controlling Plant Diseases in the Home Garden, 98  
Distribution of the Genus *Phytophthora*, 111  
Taxonomy of the Genus *Phytophthora* de Bary, 109
- with Routien, J. B.  
Mummy Disease of the Cultivated Mushroom, 121  
*See also* Bohn, G. W.  
Talbert, Thomas J.
- Tucker, George M.**  
Corn Improvement for Missouri, 72
- Turk, Lloyd M.**  
Composition of Soybean Plants at Various Growth Stages as Related to Their Rate of Decomposition and Use as Green Manure, 110  
Use of High Analysis Fertilizers, 131  
*See also* Albrecht, William A.
- Turner, Charles W.**  
Anatomy of the Mammary Gland of Cattle:  
I. Embryonic Development, 108  
II. Fetal Development, 109  
Causes of the Growth and Function of the Udder of Cattle, 83  
Comparison of Guernsey Sires Based on the Average "Mature

- Equivalent" Fat Production of the Daughters and Their Dams, 105
- Development of the Mammary Gland as Indicated by the Initiation and Increase in the Yield of Secretion, 109
- Factors Affecting the Composition of Milk, 84
- Factors Affecting the Percentage of Fat in Cows' Milk, 78
- Functional Individuality of the Mammary Glands of the Udder of the Dairy Cow, 113
- Influence of Age at First Calving on Milk Secretion, 109
- Inheritance of Body Weight in Relation to Milk Secretion, 109
- Mode of Inheritance of Yearly Butterfat Production: An Analysis of the Progeny Performance of Jersey Sires and Dams, 107
- Secretion of Milk and the Milking Process, 83
- Structure of the Cow's Udder, 83
- with DeMoss, W. R.
- Normal and Experimental Development of the Mammary Gland: I. The Male and Female Domestic Cat, 112
- with Frank, A. H.
- Effect of the Estrus Producing Hormone on the Growth of the Mammary Gland, 108-109
- Effect of the Ovarian Hormones Theelin and Corporin Upon the Growth of the Mammary Gland of the Rabbit, 110
- with Frank, A. H., Lomas, C. H., and Nibler, C. W.
- Study of the Estrus Producing Hormone in the Urine of Cattle During Pregnancy, 109
- with Gardner, W. U.
- Relation of the Anterior Pituitary Hormones to the Development and Secretion of the Mammary Gland, 109
- with Gomez, E. T.
- Development of the Mammary Glands of the Goat, 114
- Experimental Development of the Mammary Gland: I. The Male and Female Albino Mouse; II. The Male and Female Guinea Pig; 112
- Normal and Experimental Development of the Mammary Gland: II. The Male and Female Dog, 112
- Normal Development of the Mammary Gland of the Male and Female Albino Mouse, 111
- Normal Development of the Mammary Gland of the Male and Female Guinea Pig, 112
- with Haskell, A. C.
- Statistical Study of the Size of Fat Globules in Cows' Milk, 108
- with Herman, Harry A.
- Determination of the Blood and Plasma Volume of Dairy Cattle: A Study of Blood and Plasma Volume During Growth, Pregnancy, and Lactation, 109
- with Ragsdale, Arthur C.
- Comparison of Holstein-Friesian Sires Based on the Average "Mature Equivalent" Fat Production of the Daughters, 78
- Comparison of Jersey Sires Based on the Average "Mature Equivalent" Fat Production of the Daughters, 78
- with Ragsdale, A. C. and Brody, S.
- Relation Between Age, Weight, and Fat Production in Dairy Cows, 78
- with Ragsdale, A. C. and Garrison, E. R.
- Dairy Goats in Missouri, 85
- with Reineke, Ezra P.
- Study of the Involution of the Mammary Gland of the Goat, 114
- with Schultze, Andrew B.
- Study of the Causes of the Normal Development of the Mammary Glands of the Albino Rat, 109
- See also Bergman, A. J.  
Campbell, I. L.  
Elijah, H. D.  
Gardner, W. U.  
Garrison, Earl R.  
Gifford, Warren  
Gomez, E. T.  
Graham, W. R., Jr.  
Herman, Harry A.  
Hill, R. T.  
Koger, Marvin  
Lewis, A. A.  
Mixner, John P.  
Ragsdale, Arthur C.  
Ralston, N. P.  
Reece, R. P.  
Reineke, Ezra P.  
Stadler, Lewis J.
- Turner, W. D.
- Investigation of the Xylenes Obtained From the Carbonization of Coal, 156
- Tyler, E. E.
- with Haseman, Leonard
- Farm Beekeeping, 75

**Uhland, R. E.**

Time of Harvesting Soybeans in Relation to Soil Improvement and Protein Content of the Hay, 81  
— with Wooley, John C.

Control of Gullies, 80

**Uren, Andrew W.**

Bighead or Light Sensitization in Sheep and Lambs, 135

Control of Fowl Pox, 137

Essentials of Poultry Sanitation, 138

Mastitis: Diagnosis and Control, 135

Swine Erysipelas, 138

See also Connaway, John W.

Elder, Cecil

Hill, R. T.

**Vanatta, E. G.**

See Mumford, Frederick B.

Trowbridge, P. F.

**Van Barneveld, Charles E.**

Mechanical Underground Loading in Metal Mines, 156

**Vanderford, Harvey B.**

— with Albrecht, William A.

Development of Loessial Soils in Central United States as It Reflects Differences in Climate, 120

**Van Deusen, Mrs. Edith G.**

Collars and Necklines, 128

Modern Corseting, 129

Selection and Care of Shoes and Stockings, 129

See also Heyle, Essie M.

**Vaugh, Mason**

Reinforced Brickwork, 47

**Vaughn, Earnest Vancourt**

Origin and Early Development of the English Universities to the Close of the Thirteenth Century: A Study in Institutional History, 12

**Veblen, Thorstein B.**

Blond Race and the Aryan Culture, 66

**Vinson, C. G.**

Garden Beans, 96

Spray Residue Work in Missouri, 85

Virus Diseases of Plants: Purification of the Virus of Mosaic Disease of Tobacco, 114

— with McCrory, S. A.

Substitute Spray Materials, II, 118

— with McReynolds, D. K. and Gingrich, N. S.

Virus Protein of Mosaic Disease of Tobacco, 117

See also Brown, Harry E.

Hills, Claude H.

Horsfall, Frank, Jr.

McCrory, S. A.

Ross, A. Frank

**Waddell, R. L.**

Feeding Grain to Suckling Lambs, 126

**Waddill, J. T.**

— with Wood, D. C., Helm, C. A., Miller, M. F., Wiecking, E. H., Johnson, O. R., and Krusekopf, H. H.

Land Valuation, II, 80

**Wade, Otis**

Dormant Spraying of Fruit Trees: Apple, Peach, Pear, Plum, Cherry, and Quince, 141

Pocket Gopher and How to Control It, 127

See also Faurot, F. W.

**Walker, Nell**

Life and Works of Manuel Gutiérrez Nájera, 7

**Wanamaker, William W.**

Our National Defense, 156

**Warbritton, Virgene**

— with McKenzie, Fred F.

Pituitary Glands of Ewes in Various Phases of Reproduction, 115

**Washburn, Lloyd E.**

— with Brody, Samuel

Growth and Development, With Special Reference to Domestic Animals:

XLII. Methane, Hydrogen, and Carbon Dioxide Production in the Digestive Tract of Ruminants in Relation to the Respiratory Exchange, 116

— with Brody, S. and Ragsdale, A. C.

Growth and Development, With Special Reference to Domestic Animals:

L. Influence of Fasting and Re-feeding on Milk Production, Heat Production, and Respiratory Quotient, 117

— with Brody, S. and Ragsdale, A. C.

Growth and Development, With Special Reference to Domestic Animals:

L. Influence of Fasting and Re-feeding on Milk Production, Heat Production, and Respiratory Quotient, 117

**Washburn, R. M.**

Farmers' Creamery in Missouri: When and How to Build, 90

— with Brody, S. and Ragsdale, A. C.

**Waters, H. J.**

Agricultural Experiment Station: Fifth Biennial Report on the Enforcement of the Fertilizer-Control Law, 90

Third Biennial Report of the Director on the Enforcement of the Fertilizer-Control Law, 90



- Agricultural Experiment Station:  
 Practical Value of the Work of  
 the Experiment Station, 90  
 Beef Production on High Priced  
 Land, 91  
 Clover and Cowpeas: Their Value  
 as Green Manure Crops and  
 Methods of Growing, 90  
 Corn as a Stock Food, 90  
 Fattening Cattle for the Market, 72  
 Feeding the Orchard, 90  
 Field Experiments With Corn, 70  
 Influence of Width of Tire on  
 Draft of Wagons, 71  
 Inspection of Commercial Fertil-  
 izers, 72  
 Manures and Fertilizers, 71  
 Studies of the Timothy Plant: Part  
 I. The Influence of Maturity Up-  
 on the Yield, Composition, Digest-  
 ibility, Palatability, and Feeding  
 Value of Timothy Hay, 101  
 Sugar Beet (two bulletins), 71  
 Sugar Beet: Results of Tests in  
 Missouri and Directions for Grow-  
 ing, 90  
 Value of Different Kinds of Green  
 Forage for Hogs, 72  
 Wheat—Test of Varieties, 1889, 1891;  
 Oats—Test of Varieties, 1889,  
 1891; Change of Seed—Wheat,  
 Oats, and Potatoes; 70  
 Wintering Yearling Cattle, 72  
 — with Conner, C. M.  
 Field Experiments With Corn, 71  
 — with Eckles, C. H.  
 Dairy Husbandry, 72  
*See also* Stokes, J. S.
- Watkins, W. I.**  
*See* Mumford, Frederick B.
- Watson, J. G.**  
 Filling the Silo, 122
- Wayman, H. S.**  
*See* Eckles, C. H.
- Weaver, Luther A.**  
 Brood Sow and Litter, 128, 129  
 Emergency Pork Production, 97  
 Feeding and Care of the Brood Sow  
 and Litter, 125  
 Feeding Wheat to Fattening Swine,  
 75  
 Forage Crops for Swine, 91  
 Hogging Down Corn, 123, 127  
 Hogging Down Corn and Soybeans,  
 79  
 Pastures for Hogs, 79, 95  
 Rations for Weanling Pigs, 85  
 Saving the Pig Crop, 98  
 Self-Feeders for Fattening Swine,  
 75, 94  
 Soft Corn Facts, 139  
 Some Causes of Soft Pork, 136
- Soybeans and Soybean Oil Meal  
 in Swine Rations, 80  
 Various Grains and Other Corn  
 Substitutes as Hog Feeds, 133  
 Wheat, Oats, Barley, and Rye as  
 Hog Feeds, 130  
 — with Bogart, Ralph  
 Some Factors Influencing Efficient  
 Production of Sows, 88  
 Variation in Efficiency of Hogs, 100  
 — with Moffett, H. C.  
 Rough Rice for Fattening Cattle,  
 Sheep, and Hogs, 85  
*See also* Dyer, Albert J.  
 Hogan, Albert G.  
 Mumford, Frederick B.
- Weeks, Raymond**  
 Chevalerie Vivien. Facsimile Pho-  
 totypes of the Sancti Bertini Man-  
 uscript of the Bibliothèque Mun-  
 cipale de Boulogne-Sur-Mer, 11  
 Origin of the Covenant Vivien, 11
- Weigel, William Walbridge**  
 Coal Mining Methods in Missouri,  
 156
- Weinbach, Mendel P.**  
 Comparative Tests of Cylinder Oils,  
 46
- Weis, Adelia**  
*See* Bisbey, Bertha
- Welch, F. F.**  
*See* Reid, William H. E.
- Welch, Lila M.**  
 Related Art for Home Economics  
 Classes, 44
- Wells, Frederick V.**  
 Law of Zoning in Missouri, 59
- West, D. C.**  
*See* Schowengerdt, G. C.
- Westcott, A. L.**  
 Friction Tests of Lubricating  
 Greases and Oils, 46  
 Report of Steam Boiler Trials Un-  
 der Operating Conditions, 46
- Westveld, R. H.**  
 How to Plant Small Trees, 133  
 Tree Planting for Erosion Control,  
 133  
 Tree Windbreaks for Missouri  
 Farms, 133  
 — with Bennitt, Rudolf  
 Improving Food and Cover for Wild-  
 life on Missouri Farms: I. Trees  
 and Shrubs, 133, 135  
*See also* Hammar, Conrad H.
- Whaley, Lillian**  
 Milk Desserts, 140  
 Some Substantial Milk Dishes, 140
- Wheaton, Carl C.**  
 Courts and the Rule-Making Pow-  
 ers, 61  
*See also* McBaine, J. P.

- Wheeler, E. S.**  
 — with Kuechler, A. H.  
 New Mercury Volumeter, 157  
 — with Kuechler, A. H. and Lawrence, H. M.  
 Properties of Refractories in Zinc Metallurgy, 157  
*See also* O'Harra, B. M.
- Wheeler, Harold L.**  
 Bibliography on the Roasting, Leaching, Smelting and Electrometallurgy of Zinc, 156  
 Contemporary Novels and Novelists, bibliography, 151  
 List of References on the Construction and Maintenance of Rural Roads, 150; Second Edition, 150
- Whipple, Bertha K.**  
 Great Value of Meat in the Diet, 95
- White, Edward J.**  
*See* Perry, Stuart H.
- White, G. C.**  
*See* Eckles, C. H.
- White, Marion K.**  
 — with Heyle, Essie M.  
 Developing Healthy Children: I, II, III, and IV, (four bulletins), 130  
 Use and Preparation of Vegetables, 130  
 — with Hinote, J., Huston, M. C., and Chiles, S. H.  
 Foods Club: The 4-H Supper Club, 146  
 — with Hinote, J., Huston, M. C., and Dunshee, M. E.  
 Food Preparation: The Supper Club, 146  
 — with Huston, Margaret C.  
 Food Preparation: The 4-H Hot Lunch Club, 146  
 — with Huston, M. C. and Chiles, S. H.  
 4-H Food Clubs. Food Preservation Club: I. Canning Fruits and Vegetables, 146
- Whiteside, E. P.**  
 — with Marshall, C. Edmund  
 Mineralogical and Chemical Studies of the Putnam Silt Loam Soil, 122
- Whitten, J. C.**  
 Apple Growing in Missouri, 72  
 Apple Orchard, 71  
 Grape, 71  
 Home Vegetable Garden, 92  
 Investigation in Transplanting, 102  
 Missouri Apple Growing, 91  
 Peach Yellows and Peach Rosette, 90  
 Planting a Backyard Orchard, 124  
 Pruning Peach Trees, 71  
 Spraying Orchards and Vineyards, 71
- Time of Planting Vegetables, 123  
 Winter Forcing of Asparagus in the Open Field, Asparagus Culture for Missouri, 71  
 Winter Protection of the Peach, Peach Growing in Missouri, 71  
 — with Goodman, L. A.  
 Commercial Fruit Evaporators, 90
- Wiecking, E. H.**  
*See* Waddill, J. T.
- Wiggins, C. C.**  
 Some Factors Favoring or Opposing Fruitfulness in Apples: The Effect of Certain Conditions and Practices on the Development and Performance of the Individual Fruit Spur, 102
- Wilkening, Eugene A.**  
 — with Gregory, Cecil L.  
 Planning for Family Relocation: Preliminary Report on Procedures Followed and Results Obtained in Evacuation of the Basin of the Wappapello Dam, Wayne County, Missouri, 87
- Williams, I. L.**  
 — with Funk, Ernest M.  
 Factors Affecting Temperature Changes in Dressed Poultry During Refrigeration, 120
- Williams, Tyrrell**  
*See* McBaine, J. P.
- Williams, V. B.**  
*See* Miller, Merritt F.
- Williams, W. S.**  
 — with Roberts, R. Warren  
 Investigation of the Road Making Properties of Missouri Stone and Gravel, 46
- Williams, Walter**  
 Missouri Laws Affecting Newspapers, 52  
 Modern University Problems, address, Introduction to, 67  
 New Journalism in a New Far East, 54  
 Organization of Journalists in Great Britain, 55  
 Some Observations on the German Press, 55  
 Struggle in Europe for the Freedom of the Press, 55  
 World's Journalism, 52
- Williams, Mrs. Walter**  
*See* Lockwood, Sara L.
- Willson, C. A.**  
 Swine Feeding, 91  
*See also* Mumford, Frederick B.
- Winchester, C. F.**  
 Growth and Development, With Special Reference to Domestic Animals:

- LI. Seasonal, Metabolic, and Endocrine Rhythms in the Domestic Fowl, 118  
*See also* Ely, Ray E.
- Windsor, Wenona**  
 How to Cook Soybeans and Cowpeas, 123  
 War Breads, 123
- Wingo, Curtis W.**  
 Oriental Fruit Moth in Missouri, 87  
*See also* Haseman, Leonard  
 Jenkins, Lee
- Winton, Berley**  
 Improve Missouri Eggs, 132  
 Missouri Plan of Growing Healthy Chicks, 128, 131  
 Poultry Sanitation Program for Missouri, 131  
 — with Boney, W. C.  
 Poultry Equipment Made at Home, 127  
 — with Canfield, Harold  
 Ten Years of Poultry Record Keeping in Missouri, 130  
 — with Funk, Ernest M.  
 Turkey Production, 131, 132  
 — with Martin, Theodore T.  
 Poultry: I. The 4-H Baby Chick Club, 146  
 Poultry Club: III. The Poultry Breeding Club, 145  
 — with Oberlin, R. W.  
 Missouri Egg Cooler, 132  
 Missouri Summer Range Shelter, 130  
*See also* Kempster, Harry L.  
 Thomsen, Frederick L.
- Wiseman, L. L.**  
*See* Miller, Merritt F.
- Wittwer, Sylvan H.**  
 Growth Hormone Production During Sexual Reproduction of Higher Plants With Special Reference to Synapsis and Syngamy, 122
- Wolf, John B.**  
 Diplomatic History of the Bagdad Railroad, 9
- Wood, Diller C.**  
 — with Frame, Benjamin H.  
 How to Keep Cost-of-Production Accounts on Corn, 127  
*See also* Green, R. M.  
 Guengerich, H. W.  
 Hammar, Conrad H.  
 Miller, Merritt F.  
 Waddill, J. T.
- Wood, Horace W., Jr.**  
 Flood Flow on Missouri Streams, 47
- Wood, L. J.**  
*See* Zvanut, F. J.
- Woodman, Leon E.**  
 Application of the Theory of Measurements to Certain Engineering Problems, 158  
 Introduction to the Study of Complex Numbers, 157
- Woodruff, Louise**  
 Homemade Toys for Children, Age One to Six Years, 139  
 Meeting the Storage Needs of Small Children, 139  
 — with Hinote, Jane  
 Everyday Courtesies, 147  
*See also* Fitzgerald, Madonna
- Woodward, Calvin M.**  
 Education for Utility and Culture, address, 149
- Wooley, John C.**  
 Better Concrete on the Farm, 126, 130  
 Converting a Slip Scraper Into a One-Man Tractor Scraper, 138  
 Curved Roof Machinery Building, 100  
 Disposal of Household Wastes, 129  
 Durability of Fence Posts, 82, 93  
 Effect of Treatment on Fence Posts, 85  
 Emergency Storage for Soybeans, 98  
 Farm Building Plans, 130  
 Farm Building Repair, 99  
 Farm Building Studies in Northwest Missouri, 113  
 Homemade Labor Saving Devices for the Hog Farm, 94  
 Salvaging Bale Ties, 99  
 Ventilation of Animal Shelters, 97  
 Water for the Farmstead, 128, 130  
 — with Beasley, Robert P.  
 Appraisal of Farm Buildings, 97  
 — with Clark, Fra  
 Remodeling the Square House, 133  
 — with Clark, Marion W.  
 Self-Feeder for Hogs, 139  
 — with Clark, M. W. and Beasley, R. P.  
 Missouri Soil Saving Dam: Low-Cost Structure for Use in Farm Plans for Water Management, 87  
 — with Huff, Kenneth B.  
 Four Types of Hog Houses: Modified A-Type and Combination-Roof in Single and Double Units, 137  
 Planning the Farmstead, 137  
 — with Jones, Mack M.  
 Draft of Farm Wagons as Affected by Height of Wheel and Width of Tire, 79  
 — with Jones, M. M. and Huff, K. B.

- Farm Water Systems, 136  
 Water and Sewage Disposal for  
   Farm Homes, 135  
 ——— with Oberlin, R. W.  
 Farm Building Plans, 132  
 ——— with Ragsdale, Arthur C.  
 Dairy Farm Building Plans, 138  
 ——— with Ricketts, Ralph L.  
 Plans for Buildings and Equipment  
   for Beef Cattle, Sheep, and Work  
   Stock, 138  
 Plans for Farm Houses, 138  
 Plans for Hog Houses, 138  
 Plans for Poultry Buildings, 138  
 Plans for Storage Buildings, 138  
 ——— with Trowbridge, E. A. and  
   Ragsdale, A. C.  
 Why Build a Silo?—and How, 78  
*See also* Clark, Marion W.  
       Parks, Ralph R.  
       Uhland, R. E.
- Wright, F. L.**  
 Raising Pigs, 124
- Yocum, W. W.**  
*See* Murneek, Andrew E.
- Yost, Casper S.**  
 Motive Power of Life, address, 34
- Young, Daisy**  
 Implantation of the Glochidium on  
   the Fish, 66
- Young, L. E.**  
 Some Apparatus and Methods for  
   Demonstrating Rock Drilling and  
   the Loading of Drill Holes in Tun-  
   neling, 155
- Young, Louise A.**  
*See* Spicer, Mildred
- Zeigel, William Henry, Jr.**  
 Some Factors Affecting Teacher  
   Supply and Demand in Missouri,  
   45
- Zeitz, Juliaetta**  
*See* Dobbs, Ella Victoria
- Zeller, G. A.**  
 ——— with O'Harra, B. M.  
 Reduction of Zinc Oxide by Car-  
   bon, 157
- Zirkle, R. E.**  
 ——— with Cunningham, J. W. and  
   Rickett, H. W.  
 Common Bryophytes of the Vicin-  
   ity of Columbia, Missouri, 8
- Zvanut, F. J.**  
 ——— with Wood, L. J., Dodd, C. M.,  
   and Schrenk, W. T.  
 Pyrochemical Changes in Missouri  
   Halloysite, 158

## SUBJECT INDEX

All references are to pages. Arrangement is by title under subject headings which are primarily departments and divisions of the University. The Astronomical Series of the Bulletin, the 4-H Club Circulars, the Law Series of the Bulletin, and the Missouri Law Review have not been indexed. Comprehensive indexes are included in the two law publications.

### Addresses

Advertising and Publicity, Journalism Week Addresses, 53  
 Anticipating Requirements, Convocation Address, 32  
 Business of Mining, Commencement Address, 150  
 Congress of Letters, Phi Beta Kappa Address, 64  
 Education for Utility and Culture, Tau Beta Pi Address, 149  
 Engineer, Assembly Address, 151  
 Engineer Looks Ahead, Commencement Address, 154  
 Engineering and Research, Assembly Address, 157  
 Higher Education and the State, A Series of Radio Addresses by Missouri Educators Over Station KSD, 33  
 Human Side of a Mining Engineer's Life, Commencement Address, 149  
 Human Side of Mining Engineering, Commencement Address, 150  
 Individual, the State, and the Nation in the Development of Our Mineral Resources, Commencement Address, 149  
 Journalism and Diplomacy, 55  
 Journalistic Ethics and World Affairs, Journalism Week Addresses, 53  
 Local Government and the Press, Journalism Week Addresses, 55  
 Mining and Civilization, Commencement Address, 149  
 Modern University Problems, Convocation Address, 67  
 Motive Power of Life, Commencement Address, 34  
 News and the Newspaper, Journalism Week Addresses, 53  
 News, Its Scope and Limitations, Journalism Week Addresses, 55  
 Newspapers and the Courts, 54  
 Odious Comparison, Phi Beta Kappa Address, 64  
 Parker Memorial Address, 149  
 Personality, Opportunity, and the Mining Engineer, Assembly Address, 151  
 Problems of Advertising, Journalism Week Addresses, 52  
 Providing for Future Generations, Tau Beta Pi Address, 149  
 Shifting Responsibility, Commencement Address, 151

Small Community Newspaper, Journalism Week Address, 54  
 Some of the Essentials of Success, Commencement Address, 149  
 Special Phases of Journalism, Journalism Week Addresses, 53  
 Sportsmanship in Business and Public Life, Commencement Address, 151  
 Training for Foreign Exploration, Commencement Address, 151  
 What Should a Present Day Metallurgical Education Comprise? Commencement Address, 150  
 Women and the Newspaper, Journalism Week Addresses, 53  
 Writer and the Publisher, Journalism Week Addresses, 53  
*See also* Journalism, School of

### Agricultural Administration

Annual Report of State Leader of Farm Advisers, 143  
 County Farm Adviser Plan, 92  
 Emergency Agricultural Agent, 123  
 Farmer's Wartime Financial Policy, 99  
 Fifty Years in the Service of Agriculture, 1888-1938, 86  
 Land Grant College Movement, 87  
 Missouri Farm Advisers, 92  
 Post-War Agriculture, 99  
 Program for Missouri Agriculture, 144

### Agricultural Chemistry

Analyses of Commercial Fertilizers (two bulletins), 72  
 Buying Fertilizers Wisely, 98  
 Composition of Corn Fodder Grown in Drouth Years, 85  
 Concentration and Metabolism of Sugar in Ram Semen, 120  
 Effect of Ultra-Violet Rays on the Dermatitis Preventing Vitamin, 110  
 Effects of Variations in the Amounts of Vitamin B and Protein in the Ration, 112  
 Estimation of Pectin and A Study of the Constitution of Pectin, 105  
 Feeding of Livestock, 83  
 Fertilizer Inspection, Analysis, and Use: 1942, 89; 1943, 89  
 How to Choose Commercial Feeds, 98

- Inadequacy of the Concentrates Commonly Used in Swine Feeding, 119
- Inspection and Analyses of Commercial Fertilizers (two bulletins), 73
- Inspection and Analyses of Commercial Fertilizers: 1913, 74; 1914, 74
- Inspection and Analysis of Commercial Fertilizers: Spring 1930, 81; Spring 1931, 82; Spring 1932, 82
- Inspection of Commercial Fertilizers, (three bulletins) 72, 73, 74
- Inspection of Commercial Fertilizers: 1915, 75; 1916, 75; 1917, 76; 1918, 76; 1919, 76
- Inspection of Commercial Fertilizers (Spring Sales), 72
- Nutrition for Breeding Herds and Flocks, 99
- Nutritional Requirements of Rabbits and Guinea Pigs, 113
- Nutritional Requirements of the Chick, 112
- Rearing Orphan Pigs, 98
- Registration, Labeling, and Inspection of Commercial Fertilizers: 1933, 83; 1934, 84; 1935, 84; 1936, 85; 1937, 89; 1938, 86; 1939, 86; 1940, 87; 1941, 88
- Registration, Labeling, Inspection, and Sale of Commercial Fertilizers: 1929, 81; 1930, 81; 1931, 82; 1932, 82
- Relation of Biotin to Perosis in Chicks, 120
- Skin Lesions of the Rat Associated With the Vitamin B Complex, 114
- Some Relations Between Fertility and the Composition of the Diet, 105
- Studies in Animal Nutrition:
- I. Changes in Form and Weight on Different Planes of Nutrition, 103
  - II. Changes in Proportions of Carcass and Offal on Different Planes of Nutrition, 103
  - III. Changes in Chemical Composition on Different Planes of Nutrition, 103
  - IV. Nitrogen, Ash, and Phosphorus Distribution in Beef Flesh as Affected by Age and Condition, 103
  - V. Changes in the Composition of the Mature Dairy Cow While Fattening, 104
  - VI. Distribution of the Mineral Elements in the Animal Body as Influenced by Age and Condition, 106
- Studies of the Timothy Plant:
- Part I. Influence of Maturity Upon the Yield, Composition, Digestibility, Palatability, and Feeding Value of Timothy Hay, 101
  - Part II. Changes in the Chemical Composition of the Timothy Plant During Growth and Ripening, With a Comparative Study of the Wheat Plant, 101
- Supplementary Value of Various Feed-stuffs in Brood Sow Rations, 119
- Testing Fertilizers: Spring 1926, 95; Spring 1927, 80; Spring 1928, 80; Spring 1929, 81
- Testing Fertilizers for Missouri Farmers: 1920, 77; 1921, 77; 1922, 77; 1923, 78; 1924, 79; 1925, 79; 1926, 80; 1927, 80; 1928, 80
- Utilization of Energy at Different Levels of Protein Intake, 115
- Vitamin B<sub>6</sub>, Pantothenic Acid, and Unsaturated Fatty Acids as They Affect Dermatitis in Rats, 119
- Vitamins, 88
- Vitamins A and D Activity of Egg Yolks of Different Color Concentrations, 112
- Vitamins for Livestock, 88
- Vitamins Required by Pigeons, 120
- War-time Fertilizer Information (two bulletins), 89
- See also* Animal Husbandry, Dairy Husbandry, Growth and Development, and Poultry Husbandry

## Agricultural Economics and Rural Life

- Accuracy and Flexibility of Rural Real Estate Assessment in Missouri, 110
- Acquiring Farm Ownership by Payments in Kind, 85
- Agricultural Outlook for Missouri: 1942, 142; 1943, 143; 1944, 143
- Amounts and Cost of Credit Extended by Co-operative Exchanges, 86
- Classification of Land, 87
- Community Dairy Development by the Pettis County Plan, 125
- Consumer Preferences for Egg Yolk Color and Shell Color in New York City, 83
- Co-operation in Missouri Agricultural Adjustment, 95
- Co-operative Elevator Association: Articles of Incorporation and By-Laws, 125
- Co-operative Livestock Shipping Associations in Missouri, 77
- Co-operative Marketing for Missouri, 80
- Co-operative Marketing of Fruits and Vegetables on the St. Louis Market, 81
- Co-operative Wool Marketing, 124
- Corn Belt Family Farm in an Industrial Era, 100
- Cost and Income of the Farm Poultry Flock, 78

- Cost and Price Tendencies on the Farm, 93
- Cost of Horse Labor on the Farm, 75
- Cost of Marketing Livestock by Truck and Rail, 109
- Cost of Producing Cotton in Southeast Missouri, 1941, 89
- Cost of Producing Some Missouri Farm Crops, 76
- Cost of Producing Wheat and Oats in Missouri, 1920, 93
- Cost of Production on Missouri Farms, 74
- Costs of Crop Production in Missouri, 1921, 77
- Costs of Family Living on the Farm, 78
- Data Regarding Several Economic Problems in Ordinary Farm Practice, 69
- Developing New Markets for Missouri Butterfat, 80
- Direct-to-Consumer Marketing of Farm Products, 95
- Distribution of Farm Labor, 101
- Economic Aspects of Recreational Land Use in the Lake of the Ozarks Area, 88
- Economic Position of the Grape Industry in Missouri, 81
- Economics of Strawberry Production and Marketing in Missouri, 80
- Effects of Better Selection of Crops and Pastures on Farm Income in Missouri, 117
- Establishing Discharged Service Men and War Workers on Farms, 100
- Factors Affecting Farm Land Values in Missouri From an Appraisal Viewpoint, 114
- Factors Affecting Strawberry Prices, 83
- Factors Affecting Sweet Potato Prices in Missouri, 82
- Factors Involved in Buying Missouri Cream, 108
- Farm Prices and Quality of Missouri Cotton, 114
- Farm Security Administration Rehabilitation Loan Experience in Five Missouri Counties, 89
- Farm Tenant and His Renting Problem, 82
- Farmer and the Cost of Local Rural Government in Missouri, 85
- Farmers' Co-operative Marketing and Purchasing Associations in Missouri, 85
- Farming on a War Basis, 123
- Horse and Mule Outlook, 95
- How Missouri Hogs are Marketed, 84
- How to Keep Cost-of-Production Accounts on Corn, 127
- How to Keep Farm Accounts, 93
- Incorporation Plans for Fruit Marketing Associations, 127
- Increasing the Farmer's Net Income by Reducing Costs, 126
- Influence of Capital on Farm Organization: I. In a Livestock Section, 76
- Influence of Yield on Costs and Income in Agricultural Production, 81
- Labor Required and Its Distribution in Missouri Farm Crop Production, 122
- Land and Fiscal Problems in Reynolds County, Missouri, 119
- Land Tax Delinquency in Missouri, 113
- Land Tenure, 74
- Land Use Experience in Callaway County, Missouri, 120
- Land Valuation (in two parts), 80
- Landlord-Tenant Relationships in Renting Missouri Farms, 86
- Livestock Trucking in Missouri, 82
- Market Organization and Costs in the St. Louis Wholesale Fruit and Vegetable Market, 119
- Marketing Stock Hogs in Missouri, 109, 130
- Measuring the Productive Value of Pastures, 88
- Mid-West System of Marking Co-operative Livestock Shipments, 126
- Milk Production Costs and Milk Prices, 76
- Missouri Farm Prices and Purchasing Power, 105
- Missouri Farm Prices for 25 Years, 113
- Missouri Farm Prices Since 1910, 118
- Missouri Farm Real Estate Situation: 1927-1930, 109; 1930-1931, 110; 1931-1932, 112
- Missouri Farmers' Tax Position, 81
- Needed Local Government Reorganization in Ozark Land Use Adjustment Areas, 119
- New Farming Systems Applied to Southwest Missouri Upland Farms, 134
- New Systems on Northwest Missouri Upland Farms, 135
- Non-Profit Co-operative Marketing Act of 1923, 128
- Operating Expenses of Co-operative Exchanges and Elevators, 86
- Operating Practices of Missouri Co-operative Elevators, 82
- Organizing to Take Advantage of the Federal Agricultural Marketing Act, 130
- Partial Analysis of the Missouri Pig Survey Reports, 108
- Planning for Family Relocation, 87
- Possibilities and Limitations of Co-operative Marketing, 95

Power, Labor, and Machine Costs in Crop Production, Linn County, Missouri, 1930, 112

Proceedings of the First Missouri Conference on Land Utilization, 82

Profits From Milk Cows on General Corn Belt Farms, 76

Proposed Adjustments in the Farm Tenancy System in Missouri, 116

Reducing the Cost of Producing Dairy and Poultry Products in Missouri, 98

Relationship of Productivity of Farm Units and Their Ability to Pay Rent, 118

Renting Land in Missouri: Share, Share-Cash, and Cash Systems With Model Forms of Lease, 76

Re-planning Missouri Farms, 134

Rural Land Use Activities in Missouri, 86

Safeguards in Financing the Purchase of a Farm, 137

Seasonal Variation and Economy of Basic Feeds, 1924-1940, 87

Seasonal Variation in Feed Prices, 129

Sharing Earnings and Management to Hold Workers on Farms, 99

Size of Farm Business, 75

Some Considerations in Buying a Farm, 100

Successful Farm Organization, 75

Supply Function for Agricultural Commodities: A Study of the Effect of Price and Weather on the Production of Potatoes and Corn, 8

Taxation of Farms in Missouri, 105

Trend of Livestock and Feed Prices by Months, 127

Trucking Livestock in the Corn Belt Region, 89

Tyes of Farming in Missouri, 117

Use of Consumer Credit by Missouri Farm Families, 120

Using Feed Price Information to Reduce Production Costs, 98

Variations in Local Prices for Farm Products and Supplies in Missouri, 109

Variations in Production per Farm and per Worker in Missouri, 1939, 143

Wartime Agricultural Production and the Labor and Equipment Problem, 100

What to Produce in 1926, 128

Work of a Farmers' Exchange, 123

### Agricultural Education

Agricultural Collections for School Laboratories, 143

Education for Agriculture (two bulletins), 17

Extension Schools in Agriculture, 144

Handbook for Students of Vocational Agriculture, 45

Land Grant College Movement, 87

Method for Selecting the Desirable Content for Courses in Departments of Vocational Agriculture Including a Group Test on Dairy Husbandry Information, 45

School Exhibits and Contests, 143

Visual Education for Teachers of Agriculture, 44

*See also* Agricultural Extension

### Agricultural Engineering

Acetylene for Lighting Country Homes, 46

Adapting Horse-Drawn Mowers to Tractor Power, 97

Appraisal of Farm Buildings, 97

Baled Straw Silos, 141

Better Concrete on the Farm, 126, 130

Building a Sweep Rake, 100

Building With Rock, 135

Cobblestone Construction for Farm Buildings, 132

Combine Harvester in Missouri, 81

Combine Harvesters in Missouri, 87

Conserving Soil by Contour Farming, 134, 135

Conserving Soil by Strip Cropping, 134

Conserving Soil With Natural Grass Waterways, 134, 137

Control of Gullies, 80

Controlling Surface Erosion of Farm Lands, 78

Converting a Slip Scraper Into a One-Man Tractor Scraper, 138

Corn Tillage Studies on Rolling Putnam Silt Loam, 89

Country Roads, 124

Country Roads: Road Drainage, 48

Curved Roof Machinery Building, 100

Dairy Farm Building Plans, 138

Directions for Constructing a Self-Feeder, 75

Disposal of Household Wastes, 129

Diversion Dikes and Channels for Saving Soil, 137

Draft of Farm Wagons as Affected by Height of Wheel and Width of Tire, 79

Drawbar Dynamometer and Its Use in Soil Tillage Experiments, 114

Durability of Fence Posts, 82, 93

Economics of Rural Distribution of Electric Power, 46

Effect of Treatment on Fence Posts, 85

Electric Hotbeds, 82

Emergency Storage for Soybeans, 98

Farm Building Plans, 130, 132

Farm Building Repair, 99



- Farm Building Studies in Northwest Missouri, 113  
 Farm Buildings for Missouri, 123, 124  
 Farm Lighting, 134  
 Farm Lighting Systems, 79, 123  
 Farm Ponds in Missouri, 134, 139  
 Farm Tractors: Their Care, Operation, and Maintenance, 89  
 Farm Water Systems, 136  
 Farmers' Creamery in Missouri: When and How to Build, 90  
 Four Types of Hog Houses: Modified A-Type and Combination-Roof in Single and Double Units, 137  
 Good Roads and Broad Wheel Tires, 69  
 Gravity System Water Supply for the Farm Home, 141  
 Growing Sorghum and Making Sorghum Sirup, 98  
 Handling Explosives on the Farm, 127  
 Home Equipment to Lay Out Guide Lines for Contour Farming, 138  
 Homemade Driers for Fruit and Vegetables, 139  
 Homemade Electric Brooder, 139  
 Homemade Field Cultivators, 139  
 Homemade Labor Saving Devices for the Hog Farm, 94  
 Homemade Poultry Equipment, 136  
 Homemade Stock Tank Heaters, 139  
 Hot and Cold Water in the Farm Home, 141  
 How to Build a Gurler Silo, 92  
 How to Prolong the Life of Fence Posts, 91  
 Influence of Height of Wheel on the Draft of Farm Wagons, 71  
 Influence of Width of Tire on Draft of Wagons, 71  
 List of Tillage Implements, 70  
 Loading Livestock, 136  
 Low Cost Kitchen Water System, 136  
 Manual of Information on the Use and Care of the Farm Level, 142  
 Missouri Soil Saving Dam, 87  
 Missouri Summer Range Shelter, 130, 136  
 Missouri Type Milk Houses, 131  
 Mower Repair and Adjustment, 137  
 Native Lumber Silos, 134  
 Planning the Farmstead, 137  
 Plans for Buildings and Equipment for Beef Cattle, Sheep, and Work Stock, 138  
 Plans for Farm Houses, 138  
 Plans for Hog Houses, 138  
 Plans for Poultry Buildings, 138  
 Plans for Storage Buildings, 138  
 Plastered or Gurler Silo, 91  
 Plow Adjustment and Operation, 98  
 Plows and Plowing, 69  
 Pneumatic Water System for the Farm Home, 141  
 Poultry House Remodeling, 135  
 Power, Labor, and Machine Costs in Crop Production, Linn County, Missouri, 112  
 Reinforced Concrete Silo, 91  
 Relation of Electricity to Missouri Agriculture, 95  
 Remodeling the Square House, 133  
 Rental Rates for Farm Machines, 98  
 Salvaging Bale Ties, 99  
 Sanitation and Sewage Disposal for Country Homes, 46  
 Saving Gasoline on the Farm, 100  
 Self-Feeder for Hogs, 139  
 Sewage Disposal for Farm Homes, 124  
 Silo Filling Methods and Costs, 82  
 Silo for Missouri Farmers, 73  
 Simple Water System for the Farm Home, 141  
 Soil Saving Dam, 123  
 Stanchions for Dairy Cows, 139  
 Supplemental Irrigation in Missouri, 86  
 Temporary Silos, 131, (two bulletins) 133, 140  
 Terrace Outlets for Missouri, 134  
 Terracing, 86  
 Terracing Farm Lands, 130  
 Terracing to Prevent Erosion, 132  
 Test of Spray Nozzles, 71  
 Tile Drainage, 123  
 Use of Dynamite for Ditch Blasting, 128  
 Use of Electricity on Missouri Farms, 80  
 Ventilation of Animal Shelters, 97  
 Water and Sewage Disposal for Farm Homes, 130, 135  
 Water for the Farmstead, 128, 130  
 Water Management for the Farm, 137  
 Water Supply and Sewage Disposal for Country Homes, 47  
 Water Supply for Country Homes, 46  
 Water Systems for Farm Homes, 124  
 Why Build a Silo?—And How, 78
- Agricultural Experiment Station**  
 Announcement to Farmers, the So-called "Hatch Bill," Assent of Governor, Plan of Organization, Work and Experiments Proposed This Season, Personnel of Station, 70  
 Bulletins, 70-90  
 Circulars, 90-100  
 Director's Biennial Reports on the Enforcement of the Fertilizer-Control Law: 1898, 90; 1902, 90  
 Director's Reports for the Years Ending June: 1910, 73; 1911, 73; 1912, 74; 1913, 74; 1914, 75; 1915, 75; 1916, 75; 1917, 75; 1918, 76; 1919, 76; 1920, 77; 1921, 77; 1922, 77; 1923, 78; 1924, 79; 1925, 79; 1926, 79; 1927, 80; 1928, 80; 1929, 81; 1930, 82; 1931, 82; 1932, 83;

1933, 83; 1934, 84; 1935, 84; 1936, 85;  
1937, 86; 1938, 87; 1939, 88; 1940, 88;  
1941, 89

Experimental Farming, 69

Fifty Years in the Service of Agriculture, 1888-1938, 86

Partial Bibliography and Index of the Publications of the College of Agriculture and the Agricultural Experiment Station, 64, 73

Post-War Agricultural Experiment Station, 99

Practical Value of the Work of the Experiment Station, 90

Research Bulletins, 100-122

### Agricultural Extension

Books for Farmers and Farmers' Wives, 64

Extension Projects in Agriculture and Home Economics: 1915, 143; 1922, 144; 1923, 144

Extension Schools in Agriculture, 144

How to Write Interesting Club News, 142

Manual for Home Economics Extension Clubs, 142, 144

Manual for Neighborhood Women's Clubs (two bulletins), 144

Parliamentary Procedure for Farm Groups, 143

Parliamentary Rules for Home Economics Extension Clubs, 142

Suggestions for Securing Effective Participation of Rural People in Educational Programs, 143

Taking the College to the People, 144

Women's Club Work, 143

Writing Extension News, 142

See also *Agricultural Extension Service: Circulars, Leaflets, Manuals, Project Announcements, 4-H Club Circulars; and Home Economics*

### Agricultural Extension Service

Annual Reports: 1914-1915, 143; 1918, 144; 1920, 144; 1928, 144; 1929, 144; 1930, 131; 1931, 131; 1932, 132; 1933, 132; 1934, 132; 1935, 133; 1936, 134; 1937, 135; 1938, 135; 1939, 136; 1940, 136; 1942, 139

Biennial Reports: 1926, 144; 1928, 144

Circulars, 122-140

4-H Club Circulars, 145-148

How the College of Agriculture Serves Missouri Farmers Through the Agricultural Extension Service, 125

Leaflets, 140-142

Manuals, 142-143

Project Announcements, 143-144

Ten Years of Extension Work in Missouri, 1923; 144

Ten Years of Extension Work Under

the Smith-Lever Act, 1914-1924, 144  
Twenty-five Years of Extension Work in Missouri, 1939, 136

### Agriculture, College of

Agriculture as a Career, 1907, 16

Alumni Directory: 1873-1927, 28; 1873-1941, 39

Announcements; see appropriate year under General Series of the Bulletin, 14-40

Farm Bulletins, 68-69

Farmers' Week: 1916, 143; 1917, 143

Forestry Department Announcement, 1919-1920, 22

History of the Missouri College of Agriculture, 90

Home Economics Department Announcements: 1925, 26; 1931, 32; 1942-1943, 40; 1943-1944, 40; 1944-1945, 41

Partial Bibliography and Index of the Publications of the College of Agriculture and the Agricultural Experiment Station, 64, 73

Publications, 68-148

Reports; see *Agricultural Experiment Station—Director's Reports*

Short Course Announcements; see appropriate year under General Series of the Bulletin, 13-31

Views: 1903, 14; 1923, 24

### American Language and Literature

Contemporary Novels and Novelists: A List of References to Biographical and Critical Material, 151

Introduction to a Survey of Missouri Place-Names, 9

Lewis and Clark: Linguistic Pioneers, 10

Mark Twain Lexicon, 9

Mark Twain's Vocabulary: A General Survey, 9

### Anatomy

Introduction to the Mechanics of the Inner Ear, 12

Topography of the Thorax and Abdomen, 12

### Animal Husbandry

Advantages From Use of Pure Bred Ram, 92

Beef Calf Production, 132

Beef Production, 137

Beef Production on High Priced Land, 91

Breeding Experiments With Sheep, 71

Brood Sow and Litter, 128, 129

- Calcium Requirement of Brood Sows, 110
- Cane Molasses (Blackstrap) as a Live-stock Feed, 96
- Carcass Comparisons of Mature and Immature Steers, 107
- Care and Hitches for Work Horses, 131, 136
- Castrating and Docking Lambs, 129, 133
- Cells of the Adrenal Cortex of the Ewe During the Estrual Cycle and Pregnancy, 115
- Community Livestock Breeding, 123
- Comparative Tests of Different Breeds of Beef Cattle, 70
- Composition of the Beef Animal and Energy Cost of Fattening, 102
- Corn as Stock Food, 90
- Corn Fodder as Stock Food, 69
- Corn Silage for Fattening Two-Year-Old Steers, 74
- Corn Silage With and Without Shelled Corn in Rations for Fattening Steers, 75
- Corn Versus Oats for Work Mules, 74
- Corn Versus Oats for Work Mules in Missouri, 94
- Cottonseed Meal, Cold-Pressed Cake, and Linseed-Oil Meal in Rations for Fattening Cattle, 95
- Docking and Castrating Lambs, 92
- Effect of Gestation and Lactation Upon the Growth and Composition of Swine, 107
- Effect of Limited Food Supply on the Growth of Young Beef Animals, 102
- Effect on Growth of Breeding Immature Animals, 103
- Effects of Management and Sex on Carcasses of Yearling Cattle, 111
- Effects of Variations in the Amounts of Vitamin B and Protein in the Ration, 112
- Efficiency of Horses, Men, and Motors, 85
- Emergency Livestock Feeding, 96
- Emergency Pork Production, 97
- Enquiry Into the Composition of the Flesh of Cattle, 70
- Estrus, Ovulation, and Related Phenomena in the Ewe, 116
- Estrus, Ovulation, and Related Phenomena in the Mare, 119
- Experiments on Feeding Ensilage Against Dry Fodder, 70
- Experiments on Green Versus Dry Storage of Fodder, 70
- Factors in Beef Production, 128
- Factors in Profitable Beef Production, 90
- Farm Work Mares and Colts, 133
- Farmers' Beef Club, 93
- Fattening Calves for Market, 72, 127
- Fattening Cattle on Blue Grass Pasture, 73
- Fattening Early and Late Lambs, 87
- Fattening Lambs on Forage, 124, 129
- Feeding and Care of Horses, 91
- Feeding and Care of the Brood Sow and Litter, 125
- Feeding for Flesh, 69
- Feeding for Lean Meat (two bulletins), 69
- Feeding Grain to Suckling Lambs, 126
- Feeding Pigs, 69
- Feeding Steers, 69
- Feeding Tests With Different Breeds of Beef Cattle, 71
- Feeding Wheat and Corn, 69
- Feeding Wheat to Fattening Swine, 75
- Feeding Wheat to Pigs, 71
- Filling the Silo With Corn or Sorghum, 98
- Forage Crop Rotations for Pork Production, 74
- Forage Crops for Swine, 91
- Good Pasture and Roughage in Fattening Cattle, 89
- Good Pastures Improve the Pig Crop, 96
- Grain Rations for Dry Lot Hog Feeding, 72
- Grass-Fed Pigs, 69
- Growth and Reproduction in Swine, 107
- Histological Differences in the Muscles of Full, Half, and Rough Fed Steers, 112
- Hog Butchering and Pork Curing, 123
- Hogging Down Corn, 123, 127
- Hogging Down Corn and Soybeans, 79
- Horses Grown on Limited Grain Rations, 82
- Inadequacy of the Concentrates Commonly Used in Swine Feeding, 119
- Influence of the Plane of Nutrition on the Maintenance Requirement of Cattle, 103
- Keep Sheep for Profit, 124
- Lamb and Mutton on the Farm, 136
- Limited Use of Shelled Corn in Fattening Two-Year-Old Cattle, 78
- Maintenance Rations for Pigs, 69
- Maintenance Requirement of Cattle as Influenced by Condition, Plane of Nutrition, Age, Season, Time on Maintenance, Type, and Size of Animal, 101
- Meal Feeding Stock at Pasture, 69
- Mid-West System of Marking Co-operative Livestock Shipments, 126
- Missouri Plan of Growing Thrifty Pigs, 130, 135, 136
- Missouri Plan of Sheep Improvement, 131, 133, 136
- Normal Oestrous Cycle in the Sow, 105
- Nutrition for Breeding Herds and Flocks, 99

Oestrous Cycle of the Ewe, 110  
 Pastures for Hogs, 79, 95  
 Physical Composition of a Lean, a Half Fat, and a Fat Beef Carcass and the Relative Cost of the Nutrients Contained in Each, 105  
 Pig Feeding Experiments, 69  
 Pituitary Glands of Ewes in Various Phases of Reproduction, 115  
 Pork Production With Forage Crops, 73  
 Preparation of Corn for Fattening Two-Year-Old Steers, 75  
 Producing and Feeding Beef Calves, 128  
 Producing Rabbits for Meat, 99  
 Prorating Expenses on Co-operative Shipments of Livestock, 127  
 Proteins for Livestock and Poultry, 100  
 Purebred Livestock and the Average Farm, 124  
 Raising Calves for Baby Beef or Breeding Purposes, 124  
 Raising Pigs, 124  
 Rational Sheep Feeding, 91  
 Rations for Breeding Ewes, 74  
 Rations for Fattening Western Yearling Sheep, 74  
 Rations for Livestock and Poultry, 98  
 Rations for Weanling Pigs, 85  
 Rearing Orphan Pigs, 98  
 Relation of Feed Consumed to Protein and Energy Retention, 104  
 Reproductive Capacity of Rams, 116  
 Reproductive Organs and Semen of the Boar, 116  
 Retarded Growth and Mature Size of Beef Steers, 107  
 Rough Rice for Fattening Cattle, Sheep, and Hogs, 85  
 Rural Education: The Horse, 17, 65  
 Rye and Blue Grass Pastures, With and Without Grain, for Ewes Suckling Lambs, 92  
 Saving the Pig Crop, 98  
 Self-Feeders for Fattening Swine, 75, 94  
 Sheep Production, Ewe and Lamb Management, 137  
 Silage for Horses and Mules, 92  
 Soft Corn Facts, 139  
 Some Causes of Soft Pork, 136  
 Some Factors Influencing Efficient Production of Sows, 88  
 Some Factors Influencing Reproductive Efficiency of Range Cattle Under Artificial and Natural Breeding Conditions, 122  
 Soybeans and Soybean Oil Meal in Swine Rations, 80  
 Specific Effects of Rations on the Development of Swine, 72  
 Staining Method for the Differentiation of Live and Dead Spermatozoa, 100  
 Stock Yard Equipment for Livestock Shipping Associations, 127

Study of Cattle, 65  
 Suggestions for Leaders in Meat Cutting Demonstrations, 142  
 Supplementary Value of Various Feed-stuffs in Brood Sow Rations, 119  
 Supplements to Corn for Fattening Hogs, 72  
 Swine Feeding, 91  
 Swine Reproduction in Relation to Nutrition, 110  
 Thermo-Regulatory Function and Mechanism of the Scrotum, 113  
 Use of a Limited Amount of Molasses in Feeding Yearling Steers, 78  
 Utilization of Energy at Different Levels of Protein Intake, 115  
 Value of Different Kinds of Green Forage for Hogs, 72  
 Variation in Efficiency of Hogs, 100  
 Various Grains and Other Corn Substitutes as Hog Feeds, 133  
 Weight and Thyrotropic Hormone Content of the Anterior Pituitary of Swine, 121  
 Wheat as a Cattle Feed, 83  
 Wheat, Oats, Barley, and Rye as Hog Feeds, 130  
 Winter Care of Ewes, 136  
 Wintering Yearling Cattle, 72  
 Winter's Feed Supply, 124  
 Yearling Heifers and Steers for Beef Production, 82  
*See also* Agricultural Chemistry, Dairy Husbandry, Entomology, Growth and Development, and Veterinary Science.

### Art and Drama

Daedalus and Thespis, the Contributions of the Ancient Dramatic Poets to Our Knowledge of the Arts and Crafts of Greece:  
 Volume II. Sculpture (in two parts), 8  
 Volume III. Painting and Allied Arts (in two parts), 8  
 Modern Dramatic Structure, 7

### Arts and Science, College of

Announcements; *see* appropriate year under General Series of the Bulletin, 16-40  
 Arts and Science Series of the Bulletin, 41  
 Honor-Rank List: 1922-1923, 24; 1923-1924, 25; 1924-1925, 26; 1925-1926, 27; 1926-1927, 28; 1927-1928, 29; 1928-1929, 30; 1929-1930, 31; 1930-1931, 32; 1931-1932, 32; 1932-1933, 33; 1933-1934, 34; 1934-1935, 34; 1935-1936, 35; 1936-1937, 36; 1937-1938, 1938-1939, 37; 1939-1940, 38; 1940-1941, 39; 1943-1944, 41

Music Department Announcement, 1944, 41

### Astronomy

Astronomical Series of the Bulletin, 41-43

Astronomy, 66

### Bacteriology

Studies in the Physico-Chemical Behavior of Bacteria, 7

### Botany

Botany, 66

Common Bryophytes of the Vicinity of Columbia, Missouri, 8

Common Plants and Their Uses, 69

Controlling Plant Diseases in the Home Garden, 98

Corn Root Rot, 94

Corn Root Rot Studies, 107

Cytological Observations of Deficiencies Involving Known Genes, Translocations and an Inversion in *Zea mays*, 109

Differential Growth Response of Certain Varieties of Soybeans to Varied Mineral Nutrient Conditions, 121

Distribution of the Genus *Phytophthora*, 111

Experimental Study of the Rest Period in Plants:

Physiological Changes Accompanying Breaking of the Rest Period, 101

Pot-Grown Woody Plants, 101

Seeds, 101

Summer Rest of Bulbs and Herbaceous Perennials, 101

Winter Rest, 100

Flora of Boulder, Colorado, and Vicinity, 12

Flora of Columbia, Missouri, 8

Flora of Columbia, Missouri, and Vicinity: An Ecological and Systematic Study, 12

Fusion of Broken Ends of Sister Half-Chromatids Following Chromatid Breakage at Meiotic Anaphases, 117

Influence of Hydrogen-Ion Concentration on the Growth of *Fusarium Lycopersici* and on Tomato Wilt, 104

Isoelectric Point for Plant Tissue and Its Importance in Absorption and Toxicity, 7

Killing of Plant Tissue by Low Temperature, 101

List of Algae From Columbia, Missouri, 8

List of Missouri Fungi, With Special Reference to Plant Pathogens and Wood-Destroying Species, 9

Mummy Disease of the Cultivated Mushroom, 121

Parasitic and Wood-Destroying Fungi of Boone County, Missouri, 7

Plant Inspection in Missouri, 93

Powdery Mildews of Avena and Triticum, 102

Principles of Plant Production: The Seed, 90

Representative Missouri Weeds and Their Control, 87

Revegetation of Abandoned Cropland in the Cedar Creek Area, Boone and Callaway Counties, Missouri, 120

Some Common Fungous Diseases and, Their Treatment, 90

Some Protein Analogies of the Mycelium of *Fusarium Lycopersici*, 105

Studies on Fusarium Wilt of the Tomato, 118

Taxonomy of the Genus *Phytophthora* de Bary, 109

Three Fungous Diseases of the Cultivated Ginseng, 72

Utilization of Pentoses by Yeasts and the Composition of Plant Gums, 105

Varietal Resistance and Susceptibility of Oats to Powdery Mildew, Crown Rust, and Smuts, 102

Varietal Resistance and Susceptibility to Wheat Scab, 107

Wild Flowers of Missouri, a Guide for Beginners, 134

See also Field Crops and Horticulture and Forestry

### Business

See Economics and Business

### Business and Public Administration, School of

Announcements; see appropriate year under General Series of the Bulletin, 19-40

### Ceramics

Mineralogical Investigation of Chrome-Tin Pinks as Ceramic Stains, 158

Relation of Permeability and Specific Gravity of Insulating Refractories, 158

Study of the Flow Properties of Concentrated Clay-Water Mixtures, 158

Thermal Dissociation of Diaspore Clay, 158

Treatise on Missouri Clays Including Production, Occurrence, Types, Analyses, and Softening Points, With Addenda, 157

**Chemical Engineering**

- Carbonization of Missouri Cannel Coals, 156
- Electrical Precipitation as Applied to Gas Streams, 157
- Experiments on the Extraction and Recovery of Radium From Typical American Carnotite Ores, Including Contributions to Methods of Measuring Radium, 47
- Investigation of the Xylenes Obtained From the Carbonization of Coal, 156
- Pyrochemical Changes in Missouri Halloysite, 158

**Chemistry**

- Chemistry, 66
- Experiments on Sunflower Seed Oil, 47
- Experiments on the Extraction and Recovery of Radium From Typical American Carnotite Ores, Including Contributions to Methods of Measuring Radium, 47
- Mosaic Disease of Tobacco: Action of Proteoclastic Enzymes on the Virus Fraction Nature of the Virus Fraction From Various Species of Plants, 115
- Particle Size of Tobacco Mosaic Virus, 117
- Speed and Accuracy in Determination of Total Nitrogen: The Use of Selenium and Other Catalysts, 115
- Studies in the Physico-Chemical Behavior of Bacteria, 7
- Tests on Lubricating Oils, 47
- See also* Agricultural Chemistry

**Civil Engineering**

- Better Highways, 48
- Country Roads, 124
- Country Roads: Road Drainage, 48
- County Highway Planning and Mapping in Missouri, 154
- Cross-Connection Survey in Calhoun County, Michigan, 47; Revised, 47
- Descriptive Bibliography on Oil and Fluid Flow and Heat Transfer in Pipes, 157
- Earth Roads and the Oiling of Roads, 46
- Flood Flow on Missouri Streams, 47
- Friction in Air Pipes (in two parts), 155
- Friction in Small Air Pipes, 149
- Grading of Earth Roads, 47
- Investigation of Blended Portland Cement, 156
- Investigation of the Road Making Properties of Missouri Stone and Gravel, 46

- List of References on the Construction and Maintenance of Rural Roads, 150; Second Edition, 150
- Meridian Determination by Horizontal Angle Between Two Stars Applied to Alpha and Beta Ursae Minoris, 156
- Orifice Measurement of Air in Large Quantities, 155
- Preliminary Report on Blended Portland Cement, 156
- Preliminary Study Relating to the Water Resources of Missouri, 46
- Reinforced Brickwork, 47
- Road Problems in the Ozarks, 150; Second Edition, 150
- Semi-Graphical Method of Analysis for Horizontally Curved Beams, 47
- Studies in the Production of Oils and Tars From Bituminous Materials, 156
- Study for Economic Designs in Concrete for Culverts, Short Rural Bridges, Earth-Covered Arches, and Retaining Walls, 157
- Study on Reinforced Concrete Dams, 157
- Study Relating to the Water Resources of Missouri, 47
- Utilization of Blast Furnace Slag in Highway Improvement (abstract), 157

**Classical Languages and Literature**

- Antony's Oriental Policy Until the Defeat of the Parthian Expedition, 12
- Cappadocia as a Roman Procuratorial Province, 8
- Daedalus and Thespis, the Contributions of the Ancient Dramatic Poets to Our Knowledge of the Arts and Crafts of Greece:
  - Volume II. Sculpture (in two parts), 8
  - Volume III. Painting and Allied Arts (in two parts), 8
- Ithaca or Leucas? 11
- Public Arbitration in Athenian Law, 9

**Crippled Children, Missouri State Service for**

- Clinics for Crippled Children, 31
- Reports: 1928, 65; 1930, 30; 1931, 31; 1932, 32; 1935, 34; 1936, 35; 1937, 36; 1939, 37

**Crops**

- Crops for Overflowed Lands, 123
- Experiments With Farm Crops in Southwest Missouri, 74
- Rotation of Crops, 69
- See also* Field Crops and Horticulture and Forestry

**Dairy Husbandry**

- Alpha Hydrate and Beta Anhydride Lactose Crystals in Sandy Ice Cream, 118
- Anatomy of the Mammary Gland of Cattle: I, 108; II, 109
- Artificial Insemination of Dairy Cows, 86
- Cane Molasses (Blackstrap) as a Live-stock Feed, 96
- Capacities of Silos and Weights of Silage, 76
- Care, Feeding, and Management of the Dairy Sire, 81
- Carotin, the Principal Natural Yellow Pigment of Milk Fat (in four parts), 101
- Causes of the Growth and Function of the Udder of Cattle, 83
- Change of Form With Age in the Dairy Cow, 104
- Comparison of Guernsey Sires Based on the Average "Mature Equivalent" Fat Production of the Daughters and Their Dams, 105
- Comparison of Holstein-Friesian Sires Based on the Average "Mature Equivalent" Fat Production of the Daughters, 78
- Comparison of Jersey Sires Based on the Average "Mature Equivalent" Fat Production of the Daughters, 78
- Composition of the Bovine at Birth, 102
- Cottage Cheese and Yellow Cream Cheese Made on the Farm, 138
- Cottage Cheesemaking, 124
- Course of Skeletal Growth in the Dairy Cow, 105
- Dairy Action Program for Missouri for 1944 and 1945, 100
- Dairy Goats in Missouri, 85
- Dairy Husbandry, 72
- Dairy Husbandry Department, 72
- Dairy Management, 71
- Dairy Pastures, 131
- Deleterious Effect of Freezing on Several of the Physical Properties of Milk, 106
- Determination of the Blood and Plasma Volume of Dairy Cattle, 109
- Developing the Dairy Calf Club Heifer, 125
- Development of the Mammary Gland as Indicated by the Initiation and Increase in the Yield of Secretion, 109
- Development of the Mammary Glands of the Goat, 114
- Digestion Trial With Two Jersey Cows on Full Ration and on Maintenance, 100
- Directions for Testing Cream, 92
- Directions for Testing Milk on the Farm by the Babcock Method, 91
- Disturbances in the Natural Oxidation-Reduction Equilibrium of Milk With Special Reference to the Use of the Dehydrated Milks in the Manufacture of Cottage Cheese, 113
- Effect of Composition and Serving Temperature Upon Consumer Acceptance and Dispensing Qualities of Ice Cream, 118
- Effect of Cultures and the Relation of Acid Standardization to Several of the Physical and Chemical Properties of Ice Cream, 120
- Effect of Dextrose and Sucrose Sugars Upon the Properties of Ice Cream, 120
- Effect of Different Homogenization Processes on the Physical Properties of an Ice Cream Mixture and the Resulting Ice Cream When the Percentage of Fat Is Varied and the Solids not Fat Remain Constant, 108
- Effect of Different Increments of Sucrose and Dextrose on the Freezing Procedures, Mix Compositions, Stability, and Internal Structure of Ice Cream, 121
- Effect of Different Pasteurization Temperatures on Several of the Physical Properties of Milk, 107
- Effect of Different Percentages of Butterfat on the Physical Properties of Ice Cream, 104
- Effect of Homogenization at Different Pressures on the Physical Properties of an Ice Cream Mixture and the Resulting Ice Cream, 107
- Effect of Processing Ice Cream Mixtures at Different Pressures When the Milk Solids not Fat Content Is Varied, 107
- Effect of Processing on the Dispersion of Fat in an Ice Cream Mixture, 105
- Effect of Serving Temperature Upon Consumer Acceptance of Ice Creams and Sherbets, 116
- Effect of Several Ingredients Used in the Manufacture of Commercial Ice Cream on the Change in Temperature During the Freezing Process, 104
- Effect of Standardizing the Acidity in the Manufacturing of Cottage Cheese and Cultured Buttermilk, 119
- Effect of Temperature Upon Score Value and Physical Structure of Butter, 86
- Effect of the Estrus Producing Hormone on the Growth of the Mammary Gland, 108
- Effect of the Ovarian Hormones Theelin and Corporin Upon the Growth of the Mammary Gland of the Rabbit, 110
- Effect of the Sugar Content in the Man-

- ufacture of Commercial Ice Cream, 104  
 Effect of Thyroid and Thyroxine on Milk Secretion in Dairy Cattle, 116  
 Effect of Udder Irrigation and Milking Interval on Milk Secretion, 114  
 Effect on the Viscosity, Bacterial Flora, and Quality of the Resulting Ice Cream When the Ice Cream Mixture Is Re-emulsified, Re-viscolized, or Re-homogenized, 105  
 Effects of Feeding Cottonseed Products on the Composition and Properties of Butter, 102  
 Effects of Mild Hyperthyroidism on Growing Animals of Four Species, 122  
 Estimating Condition in Dairy Cattle, 84  
 Estimating Live Weights of Dairy Cattle, 84  
 Estimating Profitableness of Dairy Cows, 84  
 Estimating Silo Capacities and Silage Weights, 93  
 Evaluating the Efficiency of Dairy Cattle, 84  
 Experimental Development of the Mammary Gland, 112  
 Extraction, Separation, and Concentration of Some Anterior Pituitary Hormones, 121  
 Factors Affecting the Composition of Milk, 84  
 Factors Affecting the Per Cent of Fat in Cream From Farm Separators, 73  
 Factors Affecting the Percentage of Fat in Cows' Milk, 78  
 Factors Influencing Properties of Fermented Reconstructed Milk, 108  
 Factors Involved in Buying Missouri Cream, 108  
 Farm Cheesemaking, 123  
 Feed Consumption of Dairy Cattle During Growth, 83  
 Feeding Dairy Cattle, 81  
 Feeding Dairy Cows, 94  
 Feeding for Milk Production, 91  
 Feeding the Dairy Cow, 72, 91  
 Filling the Silo, 122  
 Formation in Vitro of Highly Active Thyroproteins, 121  
 Freezing Properties, Stability, and Physical Qualities of Chocolate Ice Cream, 111  
 Function, Assay, and Preparation of Galactin, 112  
 Functional Individuality of the Mammary Glands of the Udder of the Dairy Cow, 113  
 Grass Silage in Wartime, 98  
 Growth and Development of Dairy Calves on a Milk Diet, 115  
 Growth Standards for Dairy Cattle, 83  
 Hypophysectomy and Replacement Therapy in Relation to the Growth and Secretory Activity of the Mammary Gland, 115  
 Hypophysectomy of the Goat, 114  
 Improved Milk Production in Small Herds, 138  
 Influence of Age at First Calving on Milk Secretion, 109  
 Influence of Fatness of Cow at Parturition on Per Cent of Fat in Milk, 73  
 Influence of Plane of Nutrition of the Cow Upon the Composition and Properties of Milk and Butter Fat:  
     Influence of Overfeeding, 102  
     Influence of Underfeeding, 102  
 Inheritance of Body Weight in Relation to Milk Secretion, 109  
 Keeping Records of Dairy Cows, 92  
 Korean Lespedeza Seed as a Protein Supplement for Milk Production, 88  
 Lactochrome, the Yellow Pigment of Milk Whey, 101  
 Lactogenic and Thyrotropic Hormone Content of the Anterior Lobe of the Pituitary Gland, 116  
 Legumes, Grasses, and Cereal Crops for Silage, 97  
 Legumes, Sudan Grass, and Cereal Crops for Silage, 76  
 Maintenance Trials With Five Jersey Cows, 100  
 Making Cheddar Cheese on the Farm, 138  
 Making Quality Butter on the Farm, 138  
 Mammogenic Hormones of the Anterior Pituitary: I, 118; II, 122  
 Manufacture of Cream Cheese Involving the Use of Dry Skim Milk, 96  
 Manufacture of Whipped Cream Using Dry Skim Milk, 96  
 Method for Obtaining Arterial Blood From the Goat, 115  
 Microscopic and Statistical Analysis of Texture and Structure of Ice Cream as Affected by Composition, Physical Properties, and Processing Methods, 119  
 Milk Production Costs and Milk Prices, 76  
 Minimum Protein Requirement for Growing Dairy Heifers, 104  
 Missouri Cow Testing Associations, 126  
 Mode of Inheritance of Yearly Butterfat Production: An Analysis of the Progeny Performance of Ayrshire Sires and Dams, 107; of Jersey Sires and Dams, 107; of Holstein-Friesian Sires, 108  
 Modern Trends in the Retail Ice Cream Store, 87



- Normal and Experimental Development of the Mammary Gland, 112
- Normal Development of the Mammary Gland of the Male and Female Albino Mouse, 111
- Normal Development of the Mammary Gland of the Male and Female Guinea Pig, 112
- Normal Growth of Dairy Cattle, 102
- Normal Immunity Reactions of the Cow and the Calf With Reference to Antibody Transmission in the Colostrum, 104
- Nutrients Required for Milk Production, 101
- Nutrients Required to Develop the Bovine Fetus, 102
- Nutritive Value of Korean Lespedeza Proteins and the Determination of Biological Values of Proteins for Growing Dairy Heifers, 122
- Official Testing of Dairy Cattle, 93
- Preservation of Milk for Chemical Analysis, 102
- Production and Feeding of Silage, 79, 81
- Profitable Dairy Herds Thru Cow Testing, 123
- Proteins for Livestock and Poultry, 100
- Raising Calves on Farms Where Whole Milk Is Sold, 93
- Raising Calves on Skim Milk, 91
- Raising Calves With Skim Milk, 72
- Raising the Dairy Calf, 85
- Ration and Age of Calving as Factors Influencing the Growth and Dairy Qualities of Cows, 75
- Rations for Dairy Cows, 134, 136
- Rations for Livestock and Poultry, 98
- Relation Between Age, Weight, and Fat Production in Dairy Cows, 78
- Relation of Acidity, Solids per Gallon, and Different Sources of Serum Solids to the Physical and Chemical Properties of High Serum Solids Ice Cream, 119
- Relation of Different Ingredients of Ice Cream to Its Freezing and Supercooling Points, 116
- Relation of Dry Skim Milk to Several of the Physical and Chemical Properties of Cream Cheese, 113; of Whipped Cream, 113
- Relation of Dry Skim Milk to the Physical and Chemical Properties of Cottage Cheese, 111
- Relation of Several Ingredients to the Manufacture of Commercial Ice Cream, 95
- Relation of the Anterior Pituitary Hormones to the Development and Secretion of the Mammary Gland, 109
- Relation of the Endocrine System to the Regulation of Calcium Metabolism, 121
- Relation of the Freezing Procedure and the Composition of the Mixture to the Physical and Crystalline Structure of Ice Cream, 113
- Replacing Cane Sugar With Variable Increments of Dextrose and Cerelease Sugar in the Ice Cream Mix and Its Effect Upon the Physical and Chemical Properties of Ice Cream at Different Serving Temperatures, 119
- Sandiness in Nut Ice Creams, 111
- Secretion of Milk and the Milking Process, 83
- Selecting the Dairy Sire, 81
- Selection and Management of the Dairy Bull, 94, 124
- Shock Corn for Silage, 92
- Silage Investigations:
- Loss of Nutrients in the Silo and During the Field Curing of Corn, 104
  - Normal Temperatures and Some Factors Influencing the Quality of Silage, 102
- Silo and Its Use, 75
- Silos and Silage, 123
- Some Factors Influencing the Rate of Growth and the Size of Dairy Heifers at Maturity, 102
- Stanchions for Dairy Cows, 139
- Statistical Study of the Size of Fat Globules in Cows' Milk, 108
- Structure of the Cow's Udder, 83
- Studies in Animal Nutrition: V. Changes in the Composition of the Mature Dairy Cow While Fattening, 104
- Studies of Respiration Rate of Dairy Bull Spermatozoa, 121
- Studies on the Blood Precursors of Milk Protein, 117
- Study of the Birth Weight of Calves, 102
- Study of the Cause of Wide Variation in Milk Production by Dairy Cows, 100
- Study of the Causes of the Normal Development of the Mammary Glands of the Albino Rat, 109
- Study of the Crystallization and Occurrence of Lactose Crystals in Several Milk Products, 122
- Study of the Estrus Producing Hormone in the Urine of Cattle During Pregnancy, 109
- Study of the Involution of the Mammary Gland of the Goat, 114
- Suggestions for Dairy Leaders, 143
- Testing Milk and Cream, 94, 96
- Variations in Cream Tests, 91, 95
- Variations in Dairy Bull Semen With Respect to Its Use in Artificial Insemination, 119

Winter Dairy Rations, 140  
 Winter Rations for Dairy Cows, 131  
 Winter Rations for Dairy Heifers, 76, 94  
 Yellow Color in Cream and Butter, 92  
 Yield and Composition of the Milk of Dairy Cows and Goats as Influenced by Thyroxine, 118  
*See also* Agricultural Chemistry, Animal Husbandry, Growth and Development, and Veterinary Science

### Drama

*See* Art and Drama

### Economics and Business

Agencies of Federal Reserve Policy, 9  
 Clothing Industry in New York, 12  
 Consumer Demand in Missouri for Selected Articles of Clothing, 118  
 Consumer Demand in Missouri for Selected Articles of Household Textiles, 118  
 Economic Status of 436 Families of Missouri Clerical Workers and Wage Earners, 119  
 Hjalmar Schacht: Central Banker, 10  
 Institute of Business and Industrial Relations, 1938, 154

### Education

Abnormal and Defective Children, 48  
 Advice to Young Investors, 31  
 Circular of Information to Accredited Junior College (two bulletins), 44  
 Circular of Information to Accredited Schools, 43, (two bulletins) 44  
 Conference on Adult Education, University of Missouri, 1934, 45  
 Consolidation of Schools in Missouri, 47  
 Course of Study in Grammar Based Upon the Grammatical Errors of School Children of Kansas City, Missouri, 44  
 Experimental Study of Methods of Teaching High School German, 44  
 Fitting Into a Silent World: The First Six Years of Life, 9  
 Handwork in Grades One to Six (two bulletins), 48  
 Individual Differences in the Reading Ability of College Students, 45  
 Induction and Adaptation of College Freshmen, 45  
 Library Primer for Missouri High Schools, 64  
 Manual for the Mental and Physical Examination of School Children, 48; Revised, 49  
 Origin and Early Development of the English Universities to the Close of the Thirteenth Century, 12

Physical Education Department: Some Selected Activities for the Promotion of Physical Fitness in the Secondary School, 39  
 Related Science for Use in Vocational Home Economics Classes of Missouri High Schools, 44  
 Relation of Reported Preference to Performance in Problem Solving, 45  
 Relation of Sight and Hearing to Early School Life, 65  
 Rural School Consolidation in Missouri, 43  
 Secondary School Problems, 44  
 Some Factors Affecting Teacher Supply and Demand in Missouri, 45  
 Standard Library Organization Suggested for Missouri High Schools, 44  
 Study of High School Seniors of Superior Ability, 44  
 Study of the Rural Schools of Saline County, Missouri, 44  
 Success of the College Graduate, 16  
 Teaching of Poetry in the High School, 44  
 Technical Manual Arts for General Educational Purposes, 48  
 University High School Announcement: 1923-1924, 66; 1924-1925, 67  
 Value of Education to the Farmer, 92  
*See also* Agricultural Education, Educational Administration, Engineering Education, and Extension Division

### Education, School of

Abstracts of Dissertations in Education Accepted by the University of Missouri, 45  
 Alumni Directory and Brief Historical Sketch of the School of Education, 1928, 44  
 Announcements; *see* appropriate year under General Series of the Bulletin, 17-41  
 Education Series of the Bulletin, 43-45  
 Graduate Work in Education: New Regulations, 1925, 26

### Educational Administration

Care of Free Textbooks, 48  
 Classification of Pupils in a Junior High School, 44  
 Elementary School Building Program for Jefferson City, Missouri, 45  
 Kind of Scholarship Records to be Kept in Schools, 44  
 Missouri State School Administrative Association Proceedings, 1926, 44  
 School Building Program for Columbia, Missouri, 44  
 School Building Program for Joplin, Missouri, 44

- School Building Program for Moberly, Missouri, 45  
 School Building Program for Springfield, Missouri, 45  
 School Improvement Agencies: Suggestions for Superintendents and Principals, 47  
 Suggestions for a Code of Rules and Regulations for Missouri Boards of Education (two bulletins), 45

### Electrical Engineering

- Comparative Tests of Cylinder Oils, 46  
 Economics of Electric Cooking, 46  
 Use of Metal Conductors to Protect Buildings From Lightning, 46

### Engineering, College of

- Alumni Directory, 1878-1925, 47  
 Announcements; *see* appropriate year under General Series of the Bulletin, 13-39  
 Experiment Station Series of the Bulletin, 45-47  
 Views, 1903, 14

### Engineering Education

- Application of the Theory of Measurements to Certain Engineering Problems, 158  
 Engineer's Education and His Work, 152  
 Evaluation of Placement Examinations, 157  
 List of Articles on Engineering Education, 151  
 Mining and Metallurgical Education, 151  
 What Is an Engineering Education? 152  
 What Should a Present Day Metallurgical Education Comprise? 150

### English Language and Literature

- Browning's *Aristophanes' Apology*, 7  
 Catullian Influence in English Lyric Poetry, circa 1600-1650, 7  
 Christopher Smart: A Biographical and Critical Study, 10  
 Contemporary Novels and Novelists: A List of References to Biographical and Critical Material, 151  
 George Gascoigne's *A Hundreth Sundrie Flowres*, 10  
 Marsilio Ficino's Commentary on Plato's *Symposium*, 10  
 Milton's Rhetoric: Studies in His Defense of Liberty, 10  
 Shakespeare and the Arts of Design (Architecture, Sculpture, and Painting), 9  
 Shakespeare and the Tragic Theme, 11

### Entomology

- Are We Developing Strains of Codling Moths Resistant to Arsenic? 112  
 Bagworms Destructive in Missouri, 93  
 Beekeeping in Missouri, 82  
 Bees to Fill the Sugar Bowl, 138  
 Bramble and Bush Fruit Insects, 97  
 Breeding Cages Are Solving Codling Moth Problem, 95  
 Chigger and Its Control in Missouri, 97  
 Chinch-Bug, 71  
 Chinch-Bug and Its Control, 92  
 Chinch-Bug Infection, 90  
 Chinch-Bugs and Their Extermination, 90  
 Codling Moth and Its Control, 95  
 Codling Moth Control, 88  
 Codling Moth Problem in Missouri, 83  
 Combatting Stored Grain Pests, 98  
 Control of Apple Insects, 100  
 Control of Garden Pests, 135  
 Control of Moles, 98  
 Control of Poultry Lice and Mites, 98  
 Control of Some of the Important Garden and Truck Crop Insects, 123  
 Control of Termites, 89  
 Control of the San Jose Scale in Missouri, 75  
 Controlling American Foulbrood With Sulfa Drugs, 89  
 Controlling Bagworm on Evergreens, 100  
 Controlling Bean Leaf Damage by Beetles, 99  
 Controlling Borers of Fruit, Forest, and Shade Trees, 85  
 Controlling Bot and Warble Flies of Livestock in Missouri, 87  
 Controlling Clothes Moths and Carpet Beetles in the Home, 99  
 Controlling Fleas, 97  
 Controlling Garden Insects, 98  
 Controlling Horn and Stable Flies, 80  
 Controlling Insect Pests of Melons, Cucumbers, and Related Crops, 85  
 Controlling Mosquitoes in Missouri, 99  
 Controlling Peach Tree Borers With Paradichlorobenzene, 94  
 Controlling San Jose Scale With Lubricating Oil Emulsion, 93  
 Controlling the Chinch-Bug, 122  
 Controlling the Epidemic of Apple Worms, 80  
 Controlling the Fruit-Tree Leaf Roller, 97  
 Controlling the Insect Pests of Strawberries, 95  
 European Corn Borer, 93, 95  
 Evergreen Bagworm, 73  
 Farm Beekeeping, 75  
 Flea Beetle Damage to Garden Crops, 99  
 Fruit-Tree Bark-Beetle, Common Apple-Tree and Peach-Tree Borers, 71

Fruit-Tree Leaf-Roller, 72  
 Garden Pest Control, 132  
 Grasshopper Outbreaks in Missouri, 86  
 Grasshoppers and Their Control in Missouri, 134  
 Greenhouse Pests and Their Control, 83  
 Hessian Fly and Its Control, (two bulletins) 96, 124  
 Hessian Fly in Missouri, 72, 92, 122  
 Hog Louse and Mange Affect Pork Production, 99  
 House Fly and Its Control, 123  
 Injurious Insect Pests of Strawberries, 78  
 Insect Control With Sanitation and Cultural Practices, 99  
 Insect Pests of Field Crops, 75, 76  
 Insect Pests of Garden Crops, 126  
 Insect Pests of the Household, 84  
 Insects Destructive to Food in the Home, 99  
 Inspection Service, Control of Insect Pests and Plant Diseases, 92  
 Leaf Worm and Cotton Production, 99  
 Lesser Apple Leaf Folder, Leaf Crumpler, 71  
 Lice and Mites of Livestock, 98  
 Mexican Bean Beetle and Its Control in Missouri, 97  
 New Orchard Pest: The Fringed-Wing Apple-Bud Moth, 71  
 Nursery and Orchard Insect Pests, 76  
 Oriental Fruit Moth, 130  
 Oriental Fruit Moth in Missouri, 87  
 Periodical Cicada in Missouri, 75  
 Pickle Worm and Its Control, 94  
 Potato Insects and Their Control, 130  
 Present Status of the European Corn Borer, 97  
 Prevent Cabbage Worm Injury, 99  
 Prevent Insect Damage, 124  
 Prevent Ox Warble Losses, 99  
 Prevent Potato Beetle Damage, 99  
 Preventing Wormy Apples, 97  
 Protect Roasting Ears From Worms, 99  
 Protecting Man and Livestock From Ticks, 99  
 Rat Riddance, 138  
 San Jose Scale in Missouri, 71, 73, 90  
 Scale Insects of Missouri, 103  
 Screwworm Menace to Livestock, 99  
 Sheep Scab and Wool Production, 99  
 Sorghum Worm in Missouri, 82  
 Spraying Apple Trees for Destruction of Insects, and Prevention of Fungous Diseases, 71  
 Spraying for the Second Brood of Codling Moth, 126  
 Spring Cankerworm and Its Control, 97  
 "Sting" in the Apple: The Work of the Plum Curculio in the Apple, 72  
 Strawberry Crown Borer, 79

Strawberry False-Worm, Strawberry Leaf-Roller, 71  
 Strawberry Insects and Their Control in Missouri, 89  
 Study of Codling Moth Abundance as Influenced by Crop Failures, 89  
 Summer Chinch-Bug Control, 126, 128, 131  
 Tarnished Plant Bug, 71  
 Tarnished Plant Bug and Its Injury to Nursery Stock, 102  
 Walnut Caterpillar, 87  
 Winter Chinch-Bug Control, 126  
 Woolly-Aphis of the Apple, 90  
 Woolly-Aphis of the Apple or the Apple-Root Plant-Louse, 71  
 See also Horticulture and Forestry

### Extension Division

Announcement of Correspondence Courses: 1919-1920, 48; 1923-1924, 49; 1925-1926, 49; 1926-1927, 49; 1927-1928, 49; 1928 (two bulletins), 49, 50; 1929-1930, 50; 1931, 50; 1932, 50; 1934, 50; 1937, 51; 1939, 51  
 Announcements: 1913-1914, 48; 1914-1915, 48; 1915-1916, 48; 1916-1917, 48; 1917-1918, 48; 1919-1920, 48; 1920-1921, 48; 1921-1922, 49; 1922-1923, 49; 1924-1925 (two bulletins), 49; 1925-1926, 49  
 Correspondence Courses in High School Subjects: 1913, 47; 1914, 48; 1915, 48; 1916, 48; 1924, 49; 1927, 50; 1931, 50; 1935, 51; 1937, 51; 1940, 51  
 Correspondence Courses in University Subjects: 1941-1942, 51; 1943-1944, 51  
 Extension Class Courses Announcements: 1924-1925, 49; 1925-1926, 49; 1926-1927, 49; 1927-1928, 49; 1928-1929, 50  
 Extension Division Announcement of University Library Books for Loan, 49  
 Extension Series of the Bulletin, 47-51  
 Graduate Credit by Correspondence, 49  
 Missouri High School Debating League: 1926, 49; 1927, 50; 1928, 50; 1929, 50; 1930, 50; 1931, 50; 1932, 50; 1933, 50; 1934, 50; 1935, 51; 1936, 51; 1937, 51; 1938, 51; 1939, 51; 1940, 51; 1941, 51  
 New Departure for University Extension, 47  
 Plays and Recitations: 1923, 49; 1925, 49  
 Public Information Department Announcements: 1926, 49; 1928, 50; 1930, 50  
 Visual Education Service; Catalog of Slides, Films, and Other Visual Aids: 1925, 49; 1926, 49; 1927, 49; 1928, 50; 1929, 50; 1930, 50; 1931, 50; 1932, 50;

1933, 50; 1934, 50; 1935, 51; 1936, 51;  
1937, 51; 1938, 51; 1939, 51; 1940, 51;  
1941, 51; 1942, 51; 1943, 51; 1944, 51  
*See also* Agricultural Extension Service

### Field Crops

- Alfalfa Growing in Missouri, 72
- All-Year Pasture System for Missouri (two bulletins), 96
- Amphidiploids in the Seven-Chromosome *Triticinae*, 120
- Annual Report of the Northeast Missouri Crops Experiment Field, 1924, 94
- Best Practices in Oats Production, 96
- Better Methods for Growing Alfalfa, 83
- Better Methods of Potato Production, 131
- Better Practices in Oat Production, 141
- Bindweed and Its Control, 133
- Broom Corn Production, 141
- Canada Field Peas, 141
- Canada Thistle, 141
- Catch Crops, 141
- Characters Connected With the Yield of the Corn Plant, 103
- Chromosome Pairing and Fertility in Hybrids and Amphidiploids in the *Triticinae*, 120
- Classification of Soybeans, 108
- Clover and Cowpeas, 90
- Columbia Oats, a New Variety for Missouri (two bulletins), 81
- Commercial Fertilizers for General Field Crops, 132
- Co-operative Experiments of the Department of Agronomy (two bulletins), 91
- Co-operative Experiments With Alfalfa, 74
- Co-operative Variety Tests of Corn, 73
- Corn and Soybeans, 78
- Corn Harvesting, 69
- Corn Hybrids for Missouri, 97
- Corn Improvement for Missouri, 72
- Corn in Missouri, 126
- Corn in Missouri:
  - I. Corn Varieties and Their Improvement, 77
  - II. Field Methods That Increase the Corn Crop, 77
- Corn Selection for Exhibit Purposes, 94
- Cotton Production in Missouri, 82, 126
- Cotton Seed Selection for Southeast Missouri, 92
- Cotton Varieties for Missouri, 128
- Cotton Varieties for Southeast Missouri, 79
- Covered or Stinking Smut of Wheat, 140
- Cowpeas, 72
- Crimson Clover, Kudzu, Beggarweed, and Dalea, 141
- Crop Rotations for Missouri Soils, 77
- Cytogenetic Studies in *Triticum monococcum* L. and *T. aegilopoides* Bal., 115
- Cytogenetic Study of *Zea* and *Euchlaena*, 120
- Cytological Observations of Deficiencies Involving Known Genes, Translocations and an Inversion in *Zea mays*, 109
- Differential Growth Response of Certain Varieties of Soybeans to Varied Mineral Nutrient Conditions, 121
- Effect of a Varying Moisture Supply Upon the Development and Composition of the Maize Plant at Different Periods of Growth, 105
- Effect of a Varying Supply of Nutrients Upon the Character and Composition of the Maize Plant at Different Periods of Growth, 103
- Essentials of Alfalfa Production, 128
- Essentials of Wheat Production in Missouri, 127
- Establishing Permanent Pastures in Missouri, 132
- Experiments in Field Plot Technic for the Preliminary Determination of Comparative Yields in the Small Grains, 103
- Factors Influencing the Yield of Oats, 91
- Field Bindweed and Methods of Control, 135
- Field Experiments With Corn, 70, 71
- Field Experiments With Wheat, 70
- Flax in Missouri, 142
- Four Essentials of Wheat Production, 129
- Fulghum Oats for Missouri, 79
- Good Pasture Practice, 132
- Good Practices in Corn Planting and Cultivation, 99
- Good Use of Farm Land in Missouri, 133
- Good Varieties of Cotton for Missouri, 96, 97
- Grain Sorghums for Grain Production, 133, 135
- Grasses for Pastures and for Meadows, 69, 70
- Growing Alfalfa in Missouri, 122
- Growing Barley for Grain, 141
- Growing Cowpeas, 141
- Growing Cowpeas for Hay, 141
- Growing Field Beans, 141
- Growing Good Crops of Oats in Missouri, 84, 86, 88
- Growing Oats in Missouri, 141
- Growing Orchard Grass in South Missouri, 81, 94
- Growing Rape for Forage, 122, 126

- Growing Sorghum and Making Sorghum Sirup, 98  
 Growing Soybeans for Hay, 141  
 Growing Vetch, 141  
 Growing Wheat in Missouri, 123  
 Hairy Vetch for Missouri, 122  
 Handling the Alfalfa Crop, 124  
 How to Grow Clover, 125  
 How to Grow Red Clover, 128  
 How to Test Seed Corn, 124  
 Improve Permanent Pastures With Lespedeza, Phosphate, Lime, and Supplementary Grazing, 100  
 Inferiority of Foreign Red Clover Seed, 95  
 Johnson Grass, 141  
 Kentucky Bluegrass in Missouri, 95  
 Korean Lespedeza, 131  
 Korean Lespedeza in Missouri, 81  
 Korean Lespedeza in Rotations of Crops and Pastures, 84  
 Land Management in Corn Production, 98  
 Lespedeza for Winter Pasture, 141  
 Lespedeza Sericea, the Newest Legume for Missouri, 83  
 Liming for Clover, 124  
 Low Hop Clover, 141  
 Management of Bluegrass Pastures, 124  
 Management of Bluegrass Pastures in Missouri, 96  
 Management of Korean Lespedeza, 97  
 Management of Permanent Pastures in Missouri, 141  
 Management of Sweet Clover in a Pasture System, 97  
 Meadow and Pasture Management in the Ozark Region of Missouri, 79  
 Millet for Forage and Grain, 141  
 Mutants and Linkage Studies in *Triticum monococcum* and *T. aegiloides*, 118  
 Northeast Missouri Crops Experiment Field, Second Annual Report, 1925, 95  
 Oats-Korean Combination, 141  
 On the Genetic Nature of Induced Mutations in Plants:  
     II. A Haplo-Viable Deficiency in Maize, 112  
 Orchard Grass in Missouri, 96, 137  
 Planting and Cultivating Soybeans for Seed, 128  
 Production and Feeding of Silage, 79, 81  
 Production of Sunflower Seed in Missouri, 126, 130  
 Productive Methods for Oats in Missouri, 93  
 Productive Methods for Soybeans in Missouri, 77  
 Productive Methods for Wheat in Missouri, 77  
 Rape for Pasture, 141  
 Rape for Pasture: Oats and Canada Field Peas for Hay, 141  
 Red Sorrel, 133  
 Report of Test of Varieties of Wheat and Corn, 69  
 Report of the Yield Trials With Corn Hybrids and Varieties in Missouri: 1940, 142; 1941, 143; 1942, 143  
 Report on Missouri Cotton Experiment Fields, 1925, 94  
 Report on Southeast Missouri Cotton Experiment Fields, 1924, 94  
 Representative Missouri Weeds and Their Control, 87  
 Restoration of Bluegrass Pastures in Missouri, 134  
 Safe and Profitable Uses of Sweet Clover, 129  
 Saving Feed From Immature Corn, 133  
 Scarred Endosperm and Size Inheritance in Kernels of Maize, 103  
 Seasonal Variations in the Growth and Chemical Composition of Kentucky Bluegrass, 121  
 Seeding Meadows and Pastures, 133  
 Seeding of Alfalfa, 91  
 Seeding of Clovers and Grasses, 91  
 Seeding of Cowpeas (two bulletins), 91  
 Seeding of Meadows and Pastures, 92  
 Seeding Permanent Pastures, 98  
 Selecting and Judging Corn, 91  
 Selecting Seed Corn, 127, 129  
 Selection of Corn for Seed and for Show, 91  
 Separating Cracked and Whole Soybeans, 141  
 Simple Method for Controlling Loose Smut in Wheat, 125  
 Small Grain Production in the Lowland Region of Southeast Missouri, 88  
 Smooth Bromegrass in Missouri, 98  
 Soil Treatment for Alfalfa, 134  
 Soil, Weather, Field Trials With Corn, 70  
 Some Effects of Temperature on the Growth and Chemical Composition of Certain Pasture Grasses, 118  
 Some Factors in Wheat Production, 92  
 Sow Lespedeza in Corn, 141  
 Soybean Crop in Missouri, 96  
 Soybean Hay Production, 133  
 Soybean Production in Missouri, 88  
 Soybean Varieties for Seed and for Hay, 141  
 Soybeans and Winter Barley in One-Year Rotation, 133, 136, 142  
 Soybeans for Grain, 137  
 Spring Crops for Land on Which Fall Seedlings Failed, 137  
 Study of the Life History of Corn at Its Different Periods of Growth, 70  
 Study of the Relative Adaptation of Certain Varieties of Soybeans, 115

Sudan Grass, 126  
 Sudan Grass Production in Missouri, 131  
 Sugar Beet (two bulletins), 71  
 Sugar Beet: Results of Tests in Missouri and Directions for Growing, 90  
 Sugar Beets, 70  
 Suggestions for Missouri Corn Growers, 90  
 Sweet Clover, 123  
 Sweet Clover in Missouri, 126, 128, 133  
 Sweet Sorghum (Cane, Sorgo) for Silage and Forage, 133, 135  
 Ten Lessons on the Study of Indian Corn, 65  
 Testing Seed Corn, 141  
 Thick Spacing of Cotton for Missouri, 128, 142  
 Timothy-Lespedeza Mixture, 100  
 Utilization of Wabash Clay (Gumbo) Soils in Crop Production, 115  
 Variety Tests of Corn, 75  
 Way to Grow and Use Sudan Grass, 123  
 Way to Grow Soybeans, 123, 124  
 Wheat Growing in Missouri, 91  
 Wheat in Missouri, 86  
 Wheat—Test of Varieties, 1889, 1891;  
 Oats—Test of Varieties, 1889, 1891;  
 Change of Seed—Wheat, Oats, and Potatoes, 70  
 Winter Barley, 84  
*See also* Botany, Crops, Dairy Husbandry, Entomology, and Soils and Soil Improvement

### Fine Arts, College of

Announcements: 1924-1925, 25; 1925-1926, 26; 1926-1927, 27; 1927-1928, 28; 1928-1929, 28; 1929-1930, 29  
 Honor-Rank List for 1926-1927, 28  
 Summer Course for Musically Gifted High School Boys and Girls: 1930, 30; 1931, 31; 1935, 34

### Folk-Lore

Ballads and Songs Collected by the Missouri Folk-Lore Society, 10  
 Eileithyia, 11  
 Origin of the Werewolf Superstition, 12

### Forestry

*See* Horticulture and Forestry

### 4-H Clubs

Boys' and Girls' Club Work, 144  
 Boys' and Girls' Clubs (two bulletins), 143  
 Exhibits and Contests for Boys' and Girls' Clubs, 123  
 4-H Club Announcement, 142

4-H Club Circulars, 145-148  
 4-H War Projects, 143  
 Grain Judging for 'Boys' and Girls' Clubs, 124, 125  
 Missouri 4-H Club Manual, 143  
 Organization of Corn Clubs and Corn Club Record Book, 125  
 Plans for Conducting 4-H Club Work in Missouri (four bulletins), 144

### French Language and Literature

American Revolution in Creative French Literature (1775-1937), 10  
 Chevalerie Vivien. Facsimile Photographs of the Sancti Bertini Manuscript of the Bibliothèque Municipale of Boulogne-Sur-Mer, 11  
 Cyclic Relations of the Chanson De Willame, 11  
 Origin of the Covenant Vivien, 11  
 Peasant Vocabulary in the Works of George Sand, 7  
 Survival of French in the Old District of Sainte Genevieve, 9

### Geography

Geography of Missouri, 43  
 Geography of the St. Francis Basin, 7  
 Some Observations on the Geography and Geology of Middle-Eastern Costa Rica, 7

### Geology

Artesian Water in Missouri, 46  
 Barite Deposits of Missouri and the Geology of the Barite District, 12  
 Ebb and Flow Springs in the Ozarks, 156  
 Evolution of the Northern Part of the Lowlands of Southeastern Missouri, 11  
 Geologic Criteria for Determining the Structural Position of Sedimentary Beds, 155  
 Geology, 66  
 Geology of Missouri, 11, 46  
 Heavy Minerals in the Roubidoux and Other Sandstones of the Ozark Region, Missouri, 157  
 Origin of Chert and Flint, 7  
 Paleontology and Stratigraphy of the Phosphoria Formation, 8  
 Problem of the St. Peter Sandstone, 156  
 Some Observations on the Geography and Geology of Middle-Eastern Costa Rica, 7  
 Stratigraphy and Paleontology of the Lower Mississippian of Missouri: I, 9; II, 10  
 Stratigraphy of Some Lower Ordovician Formations of the Ozark Uplift, 158  
 Studies on the Origin of Missouri Cherts and Zinc Ores, 156

Study of the Effects of Heat on Missouri Granites, 46  
 Subterranean Stream Piracy in the Ozarks, 156  
*See also* Paleontology

### Graduate School

Announcements; *see* appropriate year under General Series of the Bulletin, 17-39

Graduate School Degrees Conferred: 1892-1937, 37; 1892-1942, 40

### Growth and Development

Growth and Development, With Special Reference to Domestic Animals:

I. Quantitative Data, 106

II. A New Method for Measuring Surface Area and Its Utilization to Determine the Relation Between Growth in Surface Area and Growth in Weight and Skeletal Growth in Dairy Cattle, 105

III. Growth Rates. Their Evaluation and Significance, 106

IV. Growth Rates During the Self-Accelerating Phase of Growth, 106

V. Effect of Temperature on the Percentage-Rate of Growth of the Chick Embryo, 106

V. Growth Rates During the Self-Inhibiting Phase of Growth, 106

VII. Equivalence of Age During the Self-Inhibiting Phase of Growth, 106

VIII. The Relation Between Weight Growth and Linear Growth With Special Reference to Dairy Cattle, 106

IX. A Comparison of Growth Curves of Man and Other Animals, 106

X. The Relation Between the Course of Growth and the Course of Senescence With Special Reference to Age Changes in Milk Secretion, 106

XI. Further Investigations on Surface Area With Special Reference to Its Significance in Energy Metabolism, 107

XII. Additional Illustrations of the Influence of Food Supply on the Velocity Constant of Growth and on the Shape of the Growth Curve, 107

XIII. The Influence of Certain Geographical and Historical Conditions on the Physical Development of Lombardy, Brown-Swiss, Brittany, Dairy Shorthorn, Ayrshire, and Beef Shorthorn Breeds of Cattle, 108

XIV. (a) Measurements of Growing Holstein and Jersey Cattle on Missouri Farms; (b) Prediction Charts for Growth of Cattle, 108

XV. Energy and Nitrogen Metabolism During the First Year of Postnatal Life, 108

XVI. The Influence of Temperature and Breeding Upon the Rate of Growth of Chick Embryos, 109

XVII. Relation Between *Resting* Energy Metabolism and Body Weight in Growing Domestic Mammals, 110

XVIII. Relation Between Basal Metabolism, *Resting* Metabolism, Heat Increments of Feeding and Body Weights in Growing Farm Mammals, 110

XIX. Relation Between Basal Metabolism and Body Weight in the Growing Domestic Fowl, 110

XX. Relation Between Basal Metabolism and Body Weights in the Growing Rat, 110

XXI. Relation Between Basal Metabolism and Body Weight in Man, Published Data, 110

XXII. Relation Between Basal Metabolism and Body Weight in Laboratory Animals, Published Data, 110

XXIII. Relation Between Basal Metabolism and Mature Body Weight in Different Species of Mammals and Birds, 110

XXIV. The Decline in Energy Metabolism per Unit Weight With Increasing Age in Farm Animals, Laboratory Animals, and Humans, 110

XXV. The Course of Energy and Nitrogen Metabolism in the Domestic Fowl During 48-Day Fasts; With Special Reference to Temperament and Training of the Birds; Notes on 60-Day Fasts in Swine; 111

XXVI. The Energy Increment of Standing Over Lying and the Cost of Getting Up and Lying Down in Growing Ruminants (Cattle and Sheep), 111

XXVII. Endogenous Urinary Nitrogen and Total Creatinine Excretion in Rats as Functions of Dietary Protein Level, Time on N-Free Diets, Age, Body Weight, and Basal Metabolism, 111

XXVIII. Decline of Endogenous Nitrogen Excretion per Unit Weight With Increasing Weight in Growing Rats, and Its Relation to the Decline in Basal Metabolism; Decline in Live Weight, Nitrogen, and Energy Metabolism With the Advance of the Period of Nitrogen Starvation and the Influence of Live Weight and of Preceding Level of Protein Intake on These Declines and on the Survival Periods; 111



- XXIX. Age Curves of Creatinine and Urinary Nitrogen Coefficients in Dairy Cattle, and Their Relations to Energy Metabolism, 111-112
- XXX. The Partition of Digestible Nitrogen Intake Between Growth, Milk Secretion, and Urinary Excretion in Growing Dairy Cattle, 112
- XXXI. Influence of the Plane of Nutrition on the Utilizability of Feeding Stuffs, 112
- XXXII. The Energy Cost of Horizontal Walking in Cattle and Horses of Various Ages and Body Weights, 113
- XXXIII. Efficiency of Work Horses of Different Ages and Body Weights, 113
- XXXIV. Basal Metabolism, Endogenous Nitrogen, Creatinine and Neutral Sulphur Excretions as Functions of Body Weight, 113
- XXXV. Energetic Efficiency of Milk Production and the Influence of Body Weight Thereon, 113
- XXXVI. Endogenous Nitrogen and Basal Energy Relationships During Growth, 113
- XXXVII. Interrelations Between Protein Intake, Endogenous, Nitrogen Excretion, and Biological Value of Protein, 114
- XXXVIII. Further Studies on the Energetic Efficiency of Milk Production and the Influence of Live Weight Thereon, 114
- XXXIX. Relation Between Monetary Profit and Energetic Efficiency of Milk Production With Special Reference to the Influence of Live Weight Thereon, 114
- XL. Comparison Between Efficiency of Horse, Man, and Motor, With Special Reference to Size and Monetary Economy, 114-115
- XLI. Relation Between Live Weight and Chest Girth in Dairy Cattle of Unknown Age (Includes the Missouri-Nebraska Standard for Estimating Live Weight From Chest Girth), 115
- XLII. Methane, Hydrogen, and Carbon Dioxide Production in the Digestive Tract of Ruminants in Relation to the Respiratory Exchange, 116
- XLIII. Diurnal Metabolic and Activity Rhythms, 116
- XLIV. Energetic Efficiency of Egg Production and the Influence of Weight Thereon, 116
- XLV. Energy-Metabolism Levels During Gestation, Lactation, and Post-Lactation Rest, 116-117
- XLVI. Relation Between Heat Increment of Gestation and Birth Weight, 117
- XLVII. A Comparison of the Amounts and Energetic Efficiencies of Milk Production in Rat and Dairy Cow, 117
- XLVIII. Relation Between Body Weight, Amount of Wool or Feathers, and Temperature Regulation, 117
- XLIX. Growth, Milk Production, Energy Metabolism, and Energetic Efficiency of Milk Production in Goats, 117
- L. The Influence of Fasting and Re-feeding on Milk Production, Heat Production, and Respiratory Quotient, 117
- LI. Seasonal, Metabolic, and Endocrine Rhythms in the Domestic Fowl, 118
- LII. Relation Between Organ Weight and Body Weight in Growing and Mature Animals, 119
- LIII. Resting Energy Metabolism and Ventilation Rate in Relation to Body Weight in Growing Jersey Cattle, 120
- LIV. Age Changes in Size, Energy Metabolism and Cardio-Respiratory Activities of Thyroidectomized Cattle, 120
- LV. Resting Energy Metabolism and Ventilation Rate in Relation to Body Weight in Growing Holstein Cattle, 120
- LVI. The Influence of Dairy Merit, Body Size, and Plane of Nutrition on the Economy of Milk Production, 121
- LVII. An Index of Muscular-Work Capacity, 121
- LVIII. Resting Energy Metabolism and Pulmonary Ventilation in Growing Horses, 121
- LIX. Resting Energy Metabolism and Pulmonary Ventilation in Growing Swine, 122
- Normal Growth of Domestic Animals, 104

### History

- Antony's Oriental Policy Until the Defeat of the Parthian Expedition, 12
- Assyrian Historiography: A Source Study, 12
- Cappadocia as a Roman Procuratorial Province, 8
- Colonial Claims to Home Rule (1765-1775): An Essay in Imperial Politics, 7
- Diplomatic History of the Bagdad Railroad, 9
- English Monastic Boroughs: A Study in Medieval History, 7

Letters of Doctor George Cheyne to Samuel Richardson (1733-1743), 10  
Loan Office Experiment in Missouri, 1821-1836, 66

Monroe Doctrine: Its Origin, Development, and Recent Interpretation, 66  
Origin and Early Development of the English Universities to the Close of the Thirteenth Century: A Study in Institutional History, 12

Pioneer Merchant in Mid-America, 10  
Public Arbitration in Athenian Law, 9  
Reception of the Egyptian Cults by the Greeks (330-30 B. C.), 9

Right of Sanctuary in England: A Study in Institutional History, 11

Some Political Writings of James Otis (in two parts), 8

Transitional Period, 1788-1789, in the Government of the United States, 12

### Home Economics

A. B. C.'s of Clothing, 137

Alteration of Commercial Patterns, 134

Altering Commercial Patterns, 129

Apples for Everyday Use, 136

Bringing Out the Natural Beauty of Wooden Furniture, 139

Built-in Bedroom Closets for the Farm Home, 134

Canning by the One-Period Cold Pack Method, 124

Canning Fruits and Vegetables (two bulletins), 136

Canning in Glass by the Cold Pack Method, 123

Canning Meat and Chicken, 131

Canning Meats, Fish, and Chicken, 135, 136

Care and Use of a Pressure Cooker, 140

Changes in Canning Vegetables, Season of 1924, 141

Children Need Milk, 140

Cleaning Clothes, 130

Clothes for Occasion, 138

Cold School Lunch, 123

Collars and Necklines, 128

Color in Dress, 131, 136

Comparative Study of Some Drapery Fabrics Available in 1942 and 1943, 122

Comparison of Qualities and Prices of Sheets Available in Missouri Stores, 87

Conservation of Home Equipment, 143

Consumer Demand in Missouri for Selected Articles of Clothing, 118

Consumer Demand in Missouri for Selected Articles of Household Textiles, 118

Cooking of Vegetables, 122

"Crooked Farming," the Trail to Better

Living: Three Act Playlet to be Presented by Elementary School Children, 142

Cutting, Curing, and Canning Pork and Beef, (two bulletins) 132, 134

Determination of the Surface Area of Young Women and Its Use in Expressing Basal Metabolic Rate, 106

Developing Healthy Children (in four parts), 130; (in two parts), 133

Dress Fitting and Cutting, 125

Dry Cleaning at Home, 132, 135

Drying Fruits and Vegetables, 123, 132, 139

Economical Selection of Textiles and Clothing, 125

Economics of Electric Cooking, 46

Effects of Wartime Measures on Cotton Dress Fabrics, 122

Eggs for Family Use, 137

Farm Kitchen, 123

Feeding of Children, 48

Feeding the Baby, 48, 124

Food for the Infant, 140

Food Habits for Children, 140

Freezer Lockers for Meat, Vegetables, and Fruit, 138

Fruit for the Family, 142

Garment Making Club, 125

Great Value of Meat in the Diet, 95

Growing Annuals to Beautify the Home Grounds, 137

Healthful Clothes for Children, 140

Home Canning Guide, 139

Home Economics Department Announcements: 1925, 26; 1931, 32; 1942-1943, 40; 1943-1944, 40; 1944-1945, 41

Home Millinery, 128

Home Storage of Vegetables, 132

Homemade Driers for Fruit and Vegetables, 139

Homemade Rugs, 133, 135

Homemade Storage Facilities for the Home, 140

Homemade Toys for Children, 139

Homemakers' Club, 123

Homemakers' Club Program, 1924-25, 144

Hot School Lunch, 131

How Certain Methods of Cooking Affect the Quality and Palatability of Beef, 81

How to Cook Soybeans and Cowpeas, 123

How to Make Good Bread From Missouri Soft Wheat Flour, 79

How to Pad a Dress Form, 124

How to Save Fats, 124

How to Save Sugar, 124

How to Select and Store Household Linens, 123

If You Would Learn to Sew, 134

Lamb and Mutton on the Farm, 136

Light Bread From Missouri Soft Wheat Flour, 131  
 Making a Simple Wash Dress and Mid-dy Blouse, 124  
 Making Light Bread, 123, 125  
 Making the Farm Grounds Attractive, 128, 135, 137  
 Meal Planning, 125, 140  
 Meat for the Family, 142  
 Meeting the Storage Needs of Small Children, 139  
 Milk and Milk Products for the Family, 138  
 Milk Desserts, 140  
 Milk for Growth, Health, Strength, 126  
 Missouri Farm Family Food Budget, 132  
 Missouri Farm Home at Its Best, 129  
 Missouri Flour for Missouri Breadmak-ing, 79  
 Missouri Housekeepers' Conference As-sociation, 91  
 Modern Corseting, 129  
 Modern Rural Home and Health, 140  
 Modern Rural Home in Missouri, 125  
 Packing the School Lunch Box, 131  
 Patching and Darning, 130  
 Perennial Plants for Beautifying the Home Grounds, 138  
 Pickles and Relishes, 123, 136  
 Pickling Fruits and Vegetables, 125, 126  
 Preparing and Cooking Beef, 95  
 Preservation of Food in the Home, 48  
 Principles of Sewing, 123  
 Related Art for Home Economics Classes, 44  
 Remodeling the Square House, 133  
 Renovation of Household Furnishings, 126  
 Salting and Brining Vegetables, 139  
 Selected Apple Recipes, 125  
 Selection and Care of Shoes and Stock-ings, 129  
 Sewing Processes, 125  
 Simple Cotton Garments, 137  
 Small Repairs Around the House, 143  
 Some Substantial Milk Dishes, 128, 140  
 Soybeans in Family Meals, 140  
 Steam Pressure Cooking, 125  
 Storing Vegetables, 124  
 Study of the Use of Missouri Soft Wheat Flour in Making Light Bread, 105  
 Study of Towels and Toweling for Con-sumer Use, 88  
 Suggestions for Leaders in Home Grow-ing and Use of Fruits, 142  
 Suggestions for Leaders in Home Grow-ing and Use of Vegetables, 142  
 Summer Clothes for Girls, 138  
 Unusual Meats, 95; How to Prepare and Serve Them, 139  
 Upholstering at Home, 140

Use and Preparation of Vegetables, 126, 130  
 Use of Lard in Cookery, 83  
 Using a Pressure Cooker for Canning, 142  
 Using Sugar, Honey, Sorghum, and Other Sirups, 138  
 Using Whole Grains in Family Meals, 139  
 Vegetables for the Family, 140, 142  
 Vitamins A and D Activity of Egg Yolks of Different Color Concentrations, 112  
 Vitamins on Your Dinner Plate, 138  
 War Breads, 123  
 Winter Clothes for Girls, 139  
 Working Heights for Kitchen Equip-ment, 127  
 Yeast Bread Made From Soft Wheat Flour, 134

### Horticulture and Forestry

Analyses of Apples at Various Stages of Growth, Bordeaux Mixture for Grape Rot, Comparative Tests of Small Fruits and Potatoes, 70  
 Annual and Biennial Bearing in York Apples, 104  
 Answers to Some Common Questions on Clearing Timbered Land, 136  
 Apical Dominance in Shoots and Prox-imal Dominance in Roots as Related to Structural Framework of the Ap-ple, 117  
 Apple Blotch Control in Missouri, 94  
 Apple Growing in Missouri, 72  
 Apple Orchard, 71  
 Apple Pollination, 110  
 Apple Pollination Investigations, 108  
 Apple Scab and Its Control, 130  
 Apples for Everyday Use, 136  
 Autumnal Migration of Nitrogen and Carbohydrates in the Apple Tree, 110  
 Bermuda Onion Culture, 129  
 Bermuda Onion Culture in Missouri, 94  
 Better Methods of Potato Production, 129  
 Better Methods of Tomato Production, 77  
 Biochemical Studies of Photoperiodism in Plants, 116  
 Blackberries and Raspberries, 132  
 Blackberries, Raspberries, and Dewber-ries, 80  
 Blackberry, Raspberry, and Dewberry Culture, 79  
 Blister and Black Rot Canker, 79  
 Bud Selection With Special Reference to the Apple and Strawberry, 102  
 Calyx Spray, 127  
 Calyx Spray for Apples, Pears, and Quinces, 126, 127  
 Causes of Cull Apples, 83  
 Cedar Rust of Apples in Missouri, 94

- Certain Responses of Apple Trees to Nitrogen Applications of Different Kinds and at Different Seasons, 103
- Changes Produced in Apple Trees by Various Types of Pruning, 104
- Cluster-Bud Spray for Apples, Making and Applying, 126, 127
- Combating Orchard and Garden Enemies, 73
- Combining Dormant and First Summer Spray in Apple Orchards Infested by San Jose Scale, 76
- Commercial Fertilizers for Strawberries, 74
- Commercial Fruit Evaporators, 90
- Commercial Grape Growing in Missouri, 90
- Commercial Strawberry Culture in Missouri, 97
- Comparative Accuracy and Efficiency in Determination of Carbohydrates in Plant Material, 118
- Comparative Value of Cyanamid in Fertilization of Apple Trees, 116
- Comparison of Four Systems of Pruning Grapes, 107
- Condensed Information on Sprays and Spraying, 125
- Control of Apple Blotch, 129
- Control of Rodents in the Orchard, 96
- Controlling Potato Diseases, 130
- Controlling Potato Diseases by Seed Treatment, 128
- Controlling Soil Moisture for Vegetable Crops in Missouri, 78
- Co-operation Among Fruit Growers, 73
- Co-operative Spraying Demonstrations in Missouri Apple Orchards, 1916-1918, 125
- Correlation of Chemical Composition With Hardiness in Brambles, 106
- Cost of Caring for a Bearing Apple Orchard, 130
- Cost of Growing an Apple Tree to Bearing Age, 129
- Covering Peach Trees to Protect the Fruit Buds; Spread of Pear Blight; Temperature and Rain Tables; Strawberry Tests; Potato Trials; Seedling Fruits; 70
- Demonstration Work With Potatoes in Missouri, 126
- Development and Care of Lawns, 97, 131
- Directions for Making Bordeaux Powder, 90
- Dormant Spraying of Fruit Trees, 141
- Effect of Root Temperature Upon the Absorption of Water by the Cucumber, 118
- Enquiry Into the Principles of Potato Growing, and Tests of Varieties, 71
- Essential Practices in Growing Thirteen Popular Vegetables, 139
- Establishing the Orchard, 97
- Establishment and Early Management of the Vineyard, 140
- Establishment and Management of the Vineyard, 130, 134
- Estimation of Pectin and a Study of the Constitution of Pectin, 105
- Factors Affecting Size and Color of Fruit, With Reference to Apples and Peaches, 87
- Factors Causing Cull Apples in Missouri, 82
- Family Garden, 132
- Family Vegetable Supply, 137
- Farm Garden, 122
- Federal and State Laws Regulating the Propagation and Distribution of Nursery Stock, 1920, 93
- Feeding the Orchard, 90
- Fertilizers for Vegetable Crops, 96
- Fertilizing Fruit Trees With Nitrogen, 84
- Fire Blight of Apples and Pears, 94
- Forest Conditions of the Ozark Region of Missouri, 73
- Forest Restoration in Missouri, 85
- Forestry Department Announcement, 1919-1920, 22
- Fourth and Fifth Summer Sprays for Apples, 127
- Fourth Summer Spray for Apples, 141
- Fruit Pollination, 81
- Fruit Sprays and Spraying, 128
- Fruit Thinning in Missouri, 80
- Fruit Varieties for Missouri, 84
- Fungicides, Insecticides, and Spray Calendar, 91
- Garden Beans, 96
- Gooseberries and Currants, 79
- Grafting and Budding, 134
- Grafting and Budding Fruit Trees, 129
- Grafting, Budding, and Early Care of Fruit Trees, 79
- Grape, 71
- Grape Culture, 70
- Grape Growing in Missouri, 78
- Growing a Woodlot From Seed, 91
- Growing Fall Gardens, 134
- Growing Fruit for Family Use, 137
- Growing Gooseberries and Currants, 97
- Growing Late Potatoes, 93
- Growing Potatoes, 97
- Growing Potatoes for Home Use, 99
- Growing Potatoes in Missouri, 89
- Growing Raspberries and Blackberries, 88
- Growing Strawberries in Missouri, 97
- Growing Tomatoes for Home Use, 99
- Growing Tomatoes for the Canning Factory, 93
- Growing Vegetables This Year, 1942, 138

- Growth Hormone Production During Sexual Reproduction of Higher Plants With Special Reference to Synapsis and Syngamy, 122  
 Growth of Oak in the Ozarks, 103  
 Handling Peach Trees After Winter Killing of Fruit Buds, 97  
 Handling, Planting, and Early Care of Fruit Trees, 129  
 Hardiness Investigations With the Apple, 117  
 Hardiness of Peach Buds, Blossoms, and Young Fruit as Influenced by the Care of the Orchard, 91  
 Harvesting the Missouri Grape Crop, 127  
 Home Flower Gardens, 97  
 Home Orchard Income, 82  
 Home Vegetable Garden, 92, 131  
 Home Vegetable Garden as a Business Proposition, 77  
 Hotbeds and Coldframes, 129, 132, 135  
 Hotbeds and Coldframes: Their Preparation and Management, 91  
 How to Plant Small Trees, 133  
 Increasing Potato Yields, 127  
 Influence of Length of Day (Photoperiod) on Development of the Soybean Plant, var. Biloxi, 114  
 Instructions for Spraying, 91  
 Investigation in Transplanting, 102  
 Investigation of the Dipping and Fumigation of Nursery Stock, 77  
 Investigations on the Hardening Process in Vegetable Plants, 103  
 Lawns and Lawn Making, 94  
 Localization of the Factors Determining Fruit Bud Formation, 103  
 Marketing Missouri Farm Timber Crops, 88  
 Melon Pest Control in Southeast Missouri, 125  
 Missouri Apple Growing, 91  
 Missouri Apple Spraying Recommendations: 1934, 96; 1936, 96  
 Missouri Peach Culture, 85  
 Missouri Strawberries, 79  
 Missouri Woods and Wood-Using Industries, 88  
 Mosaic Disease of Tobacco, 115  
 Nature of Shedding of Immature Apples, 112  
 New Bordeaux Powder for Spraying Fruit Trees Against Fungi, 72  
 New Method of Making Engine Oil Emulsions, 78  
 New Practices to Regulate the Fruit Crop, 86  
 Nitrogen and Carbohydrate Content of the Strawberry Plant, 115  
 Nitrogen and Carbohydrates Distribution in Organs of Bearing Apple Spurs, 107  
 Nitrogen Fertilizers for Fruit Trees, 94  
 Nut Tree Culture in Missouri, 88  
 Observations on Winter Injury, 103  
 On the Planting and Care of Trees for the Street and Lawn, 90  
 Particle Size of Tobacco Mosaic Virus, 117  
 Peach Culture in Missouri, 78, 88  
 Peach Growing in Missouri, 95  
 Peach Yellows and Peach Rosette, 90  
 Photoperiodism and Enzyme Activity in the Soybean Plant, 116  
 Physiology of Reproduction in Horticultural Plants: I, 105; II, 106  
 Picking, Handling, and Exhibiting Fruit, 94  
 Picking, Packing, and Shipping Apples, 95  
 Planning and Planting the Vegetable Garden, 129  
 Plant Propagation, 90  
 Plant Propagation by Seedage, Cuttage, Layerage, and Separation, 96  
 Planting a Backyard Orchard, 124  
 Planting and Care of Forest Trees on Missouri Farms, 136  
 Planting Guide for Trees and Shrubs, 142  
 Planting Methods for Farm Woodlands, 139  
 Pollination and Fruit Setting, 85  
 Potato Culture for Missouri, 124  
 Potato Growing in Missouri, 79  
 Precipitation and the Growth of Oaks at Columbia, Missouri, 103  
 Preparing Apples for Market and Their Sale, 100  
 Profitable Tomato Fertilizers, 76  
 Profits From Spraying 25 Missouri Orchards in 1914, 74  
 Propagation by Grafting and Budding, 98  
 Protecting Orchards Against Frosts and Freezes, 91  
 Pruning Apple and Pear Trees, 94, 132  
 Pruning Apple Trees, 135  
 Pruning Peach Trees, 71  
 Pruning Shade Trees, 92  
 Pruning Stone Fruits: Peaches, Cherries, and Plums, 96  
 Pruning the Apple, 93  
 Pruning the Grape, 130  
 Quantitative Distribution of Nitrogen and Carbohydrates in Apple Trees, 120  
 Rabbit and Mouse Control in the Orchard, 95  
 Relation of Temperature to Blossoming in the Apple and Peach, 103  
 Report of the Investigations and Observations of the Horticultural Department, 69

- Report of Trials of Varieties of Vegetables and Fruits, 69
- Reports on Spraying for the Codling Moth, Apple Scab, and Black Rot of the Grape, 70
- Results of Some Young Apple Tree Pruning Experiments, 118
- Sap Studies With Horticultural Plants, 101
- Seasonal Changes in the Chemical Composition of Apple Spurs, 102
- Seed Potatoes, 69
- Seed Potatoes for Better Yields, 93
- Seed Studies With Irish Potatoes, 77
- Seedling Strawberries, 70
- Selecting Fruit Varieties, 87
- Small Fruit Growing in Missouri, 77
- Soil Treatments and Seasonal Changes in the Sour Cherry, 106
- Some Factors Favoring or Opposing Fruitfulness in Apples, 102
- Some Results From Feeding Spray Chemicals to Albino Rats, 111
- Speed and Accuracy in Determination of Total Nitrogen, 115
- Spray Calendar, 71, 90
- Spray Programs for Family Fruit Plantings, 140
- Spray Residue Work in Missouri, 85
- Spraying and Dusting Fruits, 131
- Spraying Apples and Peaches, 134
- Spraying Apples, Peaches, and Cherries, 135, 136
- Spraying for the Second Brood of Codling Moth, 127
- Spraying Fruits, 130
- Spraying Grapes, 129, 132
- Spraying Grapes in Missouri (two bulletins), 127
- Spraying Grapes With Special Reference to Black Rot, 97
- Spraying Investigations, 82
- Spraying Irish Potatoes, 77
- Spraying Missouri Fruits, 78
- Spraying Orchards and Vineyards, 71
- Spraying Tree Fruits, 132
- Starting the Orchard, 96
- Storing the Family Food Supply, 139
- Strawberries, 70
- Strawberries in the Ozarks: How to Get a Stand, 126
- Strawberry Culture in Missouri, 94
- Strawberry Growing in Missouri, 96
- Studies in the Nutrition of the Strawberry, 103
- Substitute Spray Materials: I, 117; II, 118
- Substitutes for Nitrogen Fertilizers in Orchard, 98
- Suggestions for Leaders in Home Growing and Use of Fruits, 142
- Suggestions for Leaders in Home Growing and Use of Vegetables, 142
- Sweet Potato Culture in Missouri, 93
- Third Summer Spray, 127
- Third Summer Spray for Apples, Directions, 126, 127
- Three Years of Dust Spraying Under Missouri Conditions, 80
- Time of Planting Vegetables, 123
- Tomato Culture in Missouri, 78, 96
- Tomato Plant-Bed Spraying, 141
- Tomato Production in Missouri, 89
- Top and Double Working, and Bridge Grafting of Fruit Trees, 96
- Transplanting Fruit Trees, 79
- Tree Planting for Erosion Control, 133, 142
- Tree Windbreaks for Missouri Farms, 133
- Vegetable Growing in Missouri, 95
- Victory Gardens for Town and City Families, 139
- Virus Diseases of Plants: Purification of the Virus of Mosaic Disease of Tobacco, 114
- Virus Protein of Mosaic Disease of Tobacco, 117
- Winter Forcing of Asparagus in the Open Field, Asparagus Culture for Missouri, 71
- Winter Injury of Fruit in Missouri, 93
- Winter Killing of Peach Buds as Influenced by Previous Treatment, 72
- Winter Protection of the Peach, Peach Growing in Missouri, 71
- Wood for War Emergency Fuel, 98
- See also* Botany, Crops, Entomology, and Soils and Soil Improvement

### Journalism and Journalists

- Advertising and Publicity, Journalism Week Addresses, 53
- Censorship and Press Laws of Sixty Countries, 56
- Development of the Cartoon, 54
- Editorial Page, 52
- History of Mexican Journalism, 54
- Illustration in Advertising, 53
- International News Communications: The Submarine Cable and Wireless as News Carriers, 54
- Journalism and Diplomacy, Addresses, 55
- Journalism for Teachers, 43
- Journalism of Chile, 54
- Journalism of China, 53
- Journalism of Japan, 52
- Journalistic Ethics and World Affairs, Journalism Week Addresses, 53
- Journalist's Library: Books for Reference and Reading, 52
- Local Government and the Press, Journalism Week Address, 55
- New Journalism in a New Far East, 54

Newspaperman's Library, 53  
 100 Books on American Journalism, 56  
 Organization of Journalists in Great Britain, 55  
 Problems of Advertising, Journalism Week Addresses, 52  
 Recent Books for Journalists, 54  
 Some Observations on the German Press, 55  
 Some Points on the Law of the Press, 53  
 Special Phases of Journalism, Journalism Addresses, 53  
 Struggle in Europe for the Freedom of the Press, 55  
 What Is Taught in Schools of Journalism, 54  
 World's Journalism, 52  
 Writer and the Publisher, Journalism Week Addresses, 53  
 Writing Extension News, 142  
 Written by Students in Journalism, Selected Articles, 54  
 Yun Gee Portrait of John B. Powell, 56  
*See also* Journalism, School of; Newspapers; and Photography and Photoengraving

### Journalism, School of

Alumni Directory: 1923, 53; 1925, 53; 1928, 54; 1930, 55; 1934, 55; 1938, 56  
 Announcements; *see* appropriate year under General Series of the Bulletin, 17-41  
 Dedication of a Stone From St. Paul's Cathedral, 54  
 Dedication of the Frank Lee Martin Memorial Library, 56  
 Deskbooks: 1915, 52; 1919, 53; 1920, 53; 1924, 53; 1928, 54; 1930, 55; 1932, 55; 1935, 55; 1937, 56; 1938, 56; 1942, 56; 1944, 57  
 In Memoriam: Walter Williams, 1864-1935, 56  
 Journalism Series of the Bulletin, 52-57  
 Journalism Week Addresses: 1912, 52; 1913, 52; 1914, 52; 1915, 52; 1918, 52; 1923, 53; 1924 (three bulletins), 53; 1925 (two bulletins), 53; 1926 (two bulletins), 54; 1929 (two bulletins), 55; 1944, 56  
 Missouri's Honor Awards for Distinguished Service in Journalism: 1931, 55; 1932, 55; 1933, 55; 1934, 55; 1935, 55; 1936, 56; 1937, 56; 1938, 56; 1939, 56; 1940, 56; 1941, 56; 1942, 56; 1943, 56; 1944, 56  
 Presentation of a Japanese Stone Lantern, 54  
 Presentation of Stone Lions From China

and Visit of Dr. C. C. Wu, Minister of the Republic of China, 55  
 Visit of the German Ambassador and the Gift From the Press of His Country, 55

### Law, School of

Announcements; *see* appropriate year under General Series of the Bulletin, 13-40  
 Bar Bulletins, 58-60  
 Law Series of the Bulletin, 57-60; Cumulative Index, 60  
 Missouri Law Review, 60-63

### Library

Annual Report of the Librarian, 1907; List of Scientific Serials in the Libraries; 63  
 Facilities and Resources for Graduate Work, 1926, 64  
 Fifth Summer Library School, 1921, 23  
 Handbook of the Libraries, 1910, 64  
 History of the Library, 64  
 Library Series of the Bulletin, 63-64  
 List of Periodicals Currently Received by the Libraries, 63  
 List of Periodicals Currently Received by the University Library: 1921, 64; 1926, 64  
 Missouri in the Library War Service, 64  
 Opening Exercises of the New Library Building, 1916, 64  
 Survey of the Resources of the University of Missouri Library for Research Work, 1937, 64  
 William Benjamin Smith, a Friend of the University of Missouri Library, 64

### Mathematics

Distance Geometries: A Study of the Development of Abstract Metrics, 9  
 Extension of the Theory of Envelopes, 7  
 Introduction to the Study of Complex Numbers, 157  
 Mathematics, 66  
 On the Definition of the Sum of a Divergent Series, 11  
 Relation of Reported Preference to Performance in Problem Solving, 45  
 Transformation of the Euler Condition in the Calculus of Variations, 7

### Mechanical Engineering

Energy Necessary to Shear Steel at High Temperatures, 46  
 Firing Tests on Missouri Coal, 46

Friction and Lubrication Testing Apparatus, 46  
 Friction Tests of Lubricating Greases and Oils, 46  
 Heat Transmission Thru Boiler Tubes, 46  
 Heating Value and Proximate Analyses of Missouri Coals, 46  
 Report of Steam Boiler Trials Under Operating Conditions, 46

### Medicine and Preventive Medicine

Bacteria and Disease, 65  
 Cause and Treatment of Boils, 140  
 Colds: Their Causes and Treatment, 124  
 Constipation, 140  
 Early Diagnosis and Treatment of Cancer, 65  
 Family Medicine Chest, 127, 129, 140  
 Headache—a Symptom: Its Causes, Prevention, and Cure, 65  
 Health and Home Care of the Sick (in three parts), 128; (in three parts), 129  
 House Fly, 48  
 Keeping Physically Fit, 140  
 On Resuscitation, 65  
 Practice of Health, 128, 129  
 Prevention and Correction of Constipation, 130  
 Prevention of Contagious Diseases in School Children, 65  
 Prevention of Malaria, 65  
 Prevention of Tuberculosis, 65  
 Prevention of Typhoid Fever, 65  
 Preventive Medicine: Its Accomplishments and Its Aims, 65  
 Relation of Sight and Hearing to Early School Life, 65  
 Temperatures, 140  
 Water: The Prevention of Its Pollution, 65

### Medicine, School of

Alumni Directory: 1928, 65; 1938, 65  
 Announcements; *see* appropriate year under General Series of the Bulletin, 13-41  
 Medical Series of the Bulletin, 65  
 Parker Memorial Hospital With Views, 1903, 14  
 Views, 1903, 14

### Metallurgy

Bibliography on the Electrothermic Metallurgy of Zinc, 156  
 Bibliography on the Roasting, Leaching, Smelting, and Electrometallurgy of Zinc, 156  
 Bibliography on Zinc Retorts and Condensers, 157

Briquetting of Zinc Ores, 156  
 Conclusions From Experiments in Grinding, 158  
 Cupellation Losses in Assaying, 155  
 Effect of Addition Agents in Flotation (in two parts), 156  
 Electrical Precipitation as Applied to Gas Streams, 157  
 Experiments From the Flotation Laboratory, 155  
 Experiments on the Distillation of Zinc From Complex Zinc-Lead-Silver Ores, 156  
 History and the Development of the Cyanide Process, 149  
 Hot Dip Galvanizing: A Review of the Process, 158  
 Hydrometallurgy and the Electrolytic Precipitation of Zinc, 156  
 Laboratory Concentration of the Missouri Iron Ores of Iron Mountain and Pilot Knob, 157  
 List of References on Concentrating Ores by Flotation, 150  
 Mineral Thermometer, 158  
 Proceedings of the Missouri Mineral Industries Conference, 1938, 158  
 Properties of Refractories in Zinc Metallurgy, 157  
 Quantitative Determination of Lead by the Electrolytic Deposition of Lead Dioxide, 157  
 Recent Developments in Ammonia Leaching for Zinc Ores, 157  
 Reduction of Zinc Oxide by Carbon, 157  
 Scientific Fundamentals of Gravity Concentration, 157  
 Some Relations Between the Composition of a Mineral and Its Physical Properties, 149  
 Sulfation in Roasting Zinc Sulfide Concentrates, 158

### Mines and Metallurgy, School of

Announcements; *see* appropriate year under General Series of the Bulletin of the School of Mines and Metallurgy, 149  
 Broadcast Pamphlet, 151  
 Catalogs; *see* appropriate year under General Series of the Bulletin of the School of Mines and Metallurgy, 149-155  
 Engineering Field, Supplement to Catalog; *see* appropriate year under General Series of the Bulletin of the School of Mines and Metallurgy, 152-155  
 Fortieth Anniversary: Laying of the Corner Stone of Parker Hall, 149  
 General Series of the Bulletin, 149-155  
 Jackling Field, 149



List of Publications Wanted by the Library and of Duplicates Available for Exchange or Sale, 1920, 150  
 Metallurgical and Ore Dressing Laboratories, 155  
 Missouri Mining Experiment Station, 1909, 149  
 Register of Graduates and Former Students, 1871-1936, 154  
 Regulations and Guidance Information for Students; *see* appropriate year under General Series of the Bulletin of the School of Mines and Metallurgy, 152-154  
 Schedule of Classes; *see* appropriate year under General Series of the Bulletin of the School of Mines and Metallurgy, 151-154  
 Student Life: 1912, 149; 1918, 150; 1924, 151; 1925, 151; 1928, 152; 1930, 152  
 Summer Session at Rolla Announcements; *see* appropriate year under General Series of the Bulletin of the University, 25-39  
 Technical Series of the Bulletin, 155-158  
 Vocational Education Department, 1920-1921 (two bulletins), 151  
 War Records, 1920, 150

### Mines and Mining Engineering

Coal Mining Methods in Missouri, 156  
 Comparative Tests of Piston-Drill Bits, 155  
 Mechanical Underground Loading in Metal Mines, 156  
 Proceedings of the Missouri Mineral Industries Conference, 1938, 158  
 Some Apparatus and Methods for Demonstrating Rock Drilling and the Loading of Drill Holes in Tunneling, 155

### Missouri, University of

Alumni Directory: 1906, 15; 1915, 66; 1843-1917, 21  
 Buildings, Libraries, Laboratories, 1902, 14  
 Catalogs; *see* appropriate year under General Series of the Bulletin, 13-41  
 Check List of Student Serial Publications, 64  
 Check List of the Official Serial Publications of the University: 1914, 64; 1917, 64; 1921, 64; 1926, 64  
 Circular of Information With Views, 1903, 14  
 Courses and Activities, 1934, 34  
 Curricular Contest Examination Questions Used at the Interscholastic Meets: 1926-1927, 28; 1928-1929, 29

Day With the Reserve Officers' Training Corps at the University, 1923, 66  
 Every Day at the University: A Glimpse of Student Activities With Some Views of the Buildings, 1912, 18  
 Former Students Living in Missouri: 1903, 14; 1904, 14  
 Graduate School Degrees Conferred: 1892-1937, 37; 1892-1942, 40  
 Growth in Eleven Years, 1890-1901, 14  
 Growth in Thirteen Years, 1890-1903, 15  
 Growth of the University, 1900, 13  
 In Memoriam: Walter Williams, 1864-1935, 56  
 Inauguration of Stratton Duluth Brooks as President, 1923, 67  
 Interscholastic Events, Announcements and Contest Regulations: 1925, 26; 1926, 26; 1927, 27; 1928, 28; 1929, 29; 1930, 30; 1931, 31; 1939, 37; 1940, 37; 1941, 38; 1941-1942, 39  
 Jefferson Monument, 32  
 List of Students: 1923-1924, 25; 1924-1925, 26; 1925-1926, 26; 1926-1927, 27; 1927-1928, 28; 1928-1929, 29; 1929-1930, 30; 1930-1931, 31; 1931-1932, 32; 1932-1933, 33; 1933-1934, 33; 1934-1935, 34; 1935-1936, 35; 1936-1937, 36; 1937-1938, 36; 1938-1939, 37; 1939-1940, 38; 1940-1941, 38; 1941-1942, 39; 1942-1943, 40; 1943-1944, 41  
 Memorial Union and Stadium, 1923, 66  
 Missouri State Military School Announcement, 1907-8, 16  
 Missouri State Military School: Reserve Officers' Training Corps (R.O.T.C.), Students' Army Training Corps (S.A.T.C.), 1918, 21  
 Obligations and Opportunities of the Churches at the University, 1905, 15  
 Schedule of Courses; *see* appropriate year under General Series of the Bulletin, 21-41  
 Short History of the University, 1915, 66  
 Student Homes of the University, 1903, 14  
 Summer School Announcements; *see* appropriate year under General Series of the Bulletin, 13-41  
 Summer School for Town and Country Ministers, 1926, 27  
 Tale of the Tiger, 1923, 24  
 University of Missouri Bulletin, 13-60, 63-67  
 University of Missouri in Wartime, 1942, 39  
 University of Missouri Month by Month: A Calendar for 1915, 19  
 University of Missouri Studies, 7-12  
 Veterans' Announcement, 1944, 41

Views of the University, 1905-1908,  
(four bulletins), 15, 16  
What the University Has Done for Mis-  
souri: 1902, 14; 1904, 15  
*See also* specific divisions of the Uni-  
versity

### Music

Contributions to a Psychological Theory  
of Music, 11  
Musician's Arithmetic: Drill Problems  
for an Introduction to the Scientific  
Study of Musical Composition, 7

### Newspapers

Beginnings of the Modern Newspaper:  
A Comparative Study of St. Louis  
Dailies From 1875 to 1925, 54  
Building a Circulation: Methods and  
Ideals for Small-Town Newspapers,  
52  
Circulation of the Small-City Daily, 54  
Law and the Newspaper, 52  
Measurement of Reading in Five Weekly  
Newspapers, 56  
Measurement of Reading in Weekly  
Newspapers, Second Series, 56  
Missouri Intelligence and Boon's Lick  
Advertiser: A Brief History of the  
First American Newspaper West of  
St. Louis, 52  
Missouri Laws Affecting Newspapers, 52  
News and the Newspaper, Journalism  
Week Addresses, 53  
News in the County Paper, 52  
News, Its Scope and Limitations,  
Journalism Week Addresses, 55  
Newspaper and Crime, 54  
Newspaper Efficiency in the Small  
Town, 52  
Newspapers and the Courts, Addresses,  
54  
Periodic Survey of Newspaper Read-  
ing: The Columbia Missourian, 1942-  
43, 56  
Retail Advertising and the Newspaper,  
52  
Small Community Newspaper, Possibili-  
ties and Suggestions Presented Dur-  
ing Journalism Week, 54  
Small-Town Newspaper as a Business,  
53  
Statutes of the State of Missouri Re-  
lating to Notice by Publication in  
Newspapers, 55  
Women and the Newspaper, Journalism  
Week Addresses, 53  
*See also* Journalism and Journalists;  
Journalism, School of; and Photogra-  
phy and Photoengraving

**Nursing, School of**  
Announcements; *see* appropriate year  
under General Series of the Bulletin,  
22-40

### Paleontology

Conodont Studies Numbers One, Two,  
Three, and Four, (four bulletins), 8  
Devonian Fishes of Missouri, 66  
Lower Pennsylvanian (Dimple Lime-  
stone) Conodonts of the Marathon  
Region, Texas, 158  
Notes on the Ohio Shales and Their  
Faunas, 66  
Ordovician Conodonts of the Marathon  
Basin, Texas, 158  
Paleontology and Stratigraphy of the  
Phosphoria Formation, 8  
*Pseudopalatus Pristinus*: A New Genus  
and Species of Phytosaurs From Ari-  
zona, 7  
Stratigraphy and Paleontology of the  
Lower Mississippian of Missouri: I, 9;  
II, 10  
Triassic Amphibians From the Rocky  
Mountain Region, 8  
*See also* Geology

### Philology

Philological Studies in Honor of Walter  
Miller, 9

### Philosophy

Marsilio Ficino's Commentary on Plato's  
*Symposium*, 10  
Process of Inductive Inference, 11  
Treatment of Personality by Locke,  
Berkeley, and Hume: A Study, in the  
Interests of Ethical Theory, of an  
Aspect of the Dialectic of English  
Empiricism, 11

### Photography and Photoengraving

Costs of Installing and Operating a  
Small One-Man Photoengraving Plant,  
56  
First Annual Fifty-Print Exhibition of  
News and Feature Pictures, 57  
Making the Printed Picture: A Treatise  
on Photoengraving Methods, 52  
Picture Plates for the Press: Some  
Mechanical Phases of News and Ad-  
vertising Illustration, 53

### Physics

Physics, 66  
Virus Protein of Mosaic Disease of  
Tobacco, 117

**Political Science**

- Administration of Public Printing in the States, 9
- Attempts to Define and Limit "Aggressive" Armament in Diplomacy and Strategy, 10
- Doctrine of "Rebus Sic Stantibus" in International Law, 9
- Law Enforcement in Missouri: A Decade of Centralization and Central Control in Apprehension and Prosecution (1931-1941), 10
- Missouri County Court: A Study of the Organization and Functions of the County Board of Supervisors in Missouri, 8
- Monroe Doctrine: Its Origin, Development, and Recent Interpretation, 66
- Movement for Municipal Home Rule in St. Louis, 10
- Our National Defense, 156
- Public Utility Franchise in Missouri: The Relation of the Short Term Franchise as an Instrument of Public Utility Regulation to the Issue of Centralization Versus Decentralization in State Administration, 9
- State Auditor and Fiscal Control in Missouri Counties, 10
- Township Organization in Missouri, 9
- Transitional Period, 1788-1789, in the Government of the United States, 12

**Poultry Husbandry**

- Adequacy of Synthetic Rations for the Growth of Chicks, 105
- Artificial Incubation, 94
- Brooding Chicks, 129, 132
- Cane Molasses (Blackstrap) as a Live-stock Feed, 96
- Chicken and Turkey for the Farm, 143
- Colony Brooder House, 130, 138
- Combination Brooder and Range Shelter for the Family Poultry Flock, 137
- Cooling of Eggs, 84
- Correlation Between Sexual Maturity and Egg Production, 105
- Culling for Egg Production, 128
- Culling the Farm Flock, 128
- Demonstration Farm Flocks and Certified Poultry Breeding, 144
- Effect of Inadequate Rations on the Composition of the Blood and of the Bone of Chicks, 107
- Effects of Temperature and Humidity on the Keeping Quality of Shell Eggs, 122
- Egg Weight in the Domestic Fowl, 83
- Factors Affecting Temperature Changes in Dressed Poultry During Refrigeration, 120
- Factors Influencing Hatchability in the Domestic Fowl, 83
- Factors Influencing Production of Clean Eggs, 85
- Farm Poultry House Construction, 74
- Farmer's Poultry House, 92
- Fattening Farm Poultry, 94
- Feed-Purchasing Power of a Hen's Egg Production, 80, 83
- Feeding Baby Chicks, 93, 94, 95, 130, 135, 140
- Feeding for Egg Production, 92, 93, 95, 132, 136
- Fertility in the Male Domestic Fowl, 120
- Five Years of Poultry Record Keeping in Missouri, 1929 to 1933, 133
- Game Bird Investigations: Quail and Chukar Partridges, 87
- Homemade Electric Brooder, 139
- Homemade Poultry Equipment, 136
- How to Breed Good Layers, 124
- How to Cull Farm Hens, 124, 126
- Improve Missouri Eggs, 132
- Improving the Keeping Quality and the Market Value of Eggs by Proper Cleaning, 85
- Improving the Keeping Quality of Eggs by Cleaning With Sodium Hydroxide, 116
- Influence of Animal and Vegetable Proteins on Egg Production, 79
- Influence of Various Protein Concentrates on Egg Production, 81
- Judging of Chickens, 123
- Korean Lespedeza Seed as a Protein Supplement in Chick Rations, 88
- Leaders' Suggestions in Producing and Using Eggs and Poultry, 143
- Low Cost Poultry Housing, 137
- Meat Scrap and Sour Milk for Egg Production, 76
- Missouri Colony Brooder House, 93, 124, 127
- Missouri Egg Cooler, 132
- Missouri Plan of Flock Improvement, 125, 126
- Missouri Plan of Growing Healthy Chicks, 128, 131
- Missouri Poultry House, 92, 93, 125, 133
- Normal Growth of Chickens, 87
- Normal Growth of Chickens Under Normal Conditions, 115
- Nutrition for Breeding Herds and Flocks, 99
- Nutritional Requirements of the Chick, 112
- Pasteurization of Shell Eggs, 121
- Poultry Equipment Made at Home, 127
- Poultry House Remodeling, 135
- Poultry Housing Conditions in Missouri, 87

Poultry Sanitation Program for Missouri, 131

Producing Hatching Eggs, 132

Producing Quality Chicks, 131

Profits From Farm Poultry Flocks in Missouri for 1919, 125

Promoting and Judging an Egg Show, 128

Protein Content of Concentrates for Turkeys, 89

Protein Feeds for Laying Hens, 92

Proteins for Livestock and Poultry, 100

Quality Egg Production and Marketing, 136

Rations for Livestock and Poultry, 98

Relation of Inadequate Rations to the Weights of the Internal Organs of Chicks, 107

Relation of the Date of Sexual Maturity to Egg Production, 105

Saving the Summer Egg, 124

Some Economic Aspects of the Farm Poultry Enterprise, 114

Some Production Costs With Growing Chicks, 82

Sour Milk for Chicken Feeding, 92

Stabilizing Quality in Shell Eggs, 121

Story of a Backyard Flock, 123

Ten Years of Poultry Record Keeping in Missouri, 130

30 x 30 Missouri Poultry House, 94, 129, 130

Turkey Production, 131, 132

Turkey Production in Missouri, 135

Use of Vegetable Protein Concentrates for Raising Turkeys, 86

Value of Dried Skim Milk for Fattening Poultry, 82

Value of Soybean Oil Meal in Broiler Rations, 88

War Time Production of Poultry and Eggs, 137

Winter Eggs for Missouri, 124

*See also* Agricultural Chemistry, Entomology, Growth and Development, and Veterinary Science

### Psychology

Effect of Exercise on the Recovery of Motor Function in the Rat, 10

### Public Administration

*See* Political Science

### Rural Life

*See* Agricultural Economics and Rural Life

### Rural Sociology

Activities of Rural Young People in Missouri, 116

Ashland Community Survey, 76

Community Relations of Rural Young People, 106

Contacts in a Rural Community, 107

Family Health Practices in Dallas County, Missouri, 121

Rural Church in Missouri, 114

Rural Community Trends, 109; Second Report, 112

Rural Health Facilities of Lewis County, Missouri, 121

Rural Population Groups, 104

Rural Population Resources of Missouri, 118

Rural Social Areas in Missouri as Determined by Statistical Analysis of County Data, 118

Rural Women and the Works Progress Program: A Partial Analysis of Levels of Living, 115

Social, Economic, and Homemaking Factors in Farm Living, 109

Some Rural Social Agencies in Missouri: Their Nature and Extent, 118

*See also* Sociology

### Science

Unity of Science, 66

*See also* specific branches of Science

### Sociology

Analysis of Social Data, 109

Blond Race and the Aryan Culture, 66

Children Born Out of Wedlock, 12

Clothing Industry in New York, 12

Community Organization, 127

Community Organization in Missouri, 128, 129

Condition of the Almshouses of Missouri, 1903, 14

Condition of the County Jails of Missouri, 14

Libraries of Missouri: A Survey of Facilities, 114

Missouri Libraries, 1915-1935, 64

Neosho, Missouri, Under the Impact of Army Camp Construction: A Dynamic Situation, 11

Population of Missouri: A General Survey of Its Sources, Changes, and Present Composition, 111

Public Relief and Private Charity in England, 11

Results of a Religious Census of Columbia, 1901, 14

Secret Societies: A Cultural Study of Fraternalism in the United States, 10

Selective Factors in Migration and Occupation: A Study of Social Selection in Rural Missouri, 10  
 Social Function of Religious Belief, 12  
 Social Survey: Its History and Methods, 66  
*See also* Rural Sociology

### Soils and Soil Improvement

- Agricultural Lime, 75, 76  
 Artificial Manure Production on the Farm, 80, 84  
 Bat Guano and Its Fertilizing Value, 77  
 Behavior of Legume Bacteria (*Rhizobium*) in Relation to Exchangeable Calcium and Hydrogen-Ion Concentration of the Colloidal Fraction of the Soil, 115  
 Behavior of Potassium and Sodium During the Process of Soils Formation, 109  
 Brown Loess Soils of Missouri and Their Utilization, 79  
 Buying Fertilizers Wisely, 98  
 Chemical Nature of a Colloidal Clay, 103  
 Choosing a Commercial Fertilizer, 129  
 Classification of Land, 87  
 Colloidal Properties of Soil Organic Matter, 116  
 Commercial Fertilizers, 72  
 Commercial Fertilizers for General Field Crops, 132  
 Composition of Soybean Plants at Various Growth Stages as Related to Their Rate of Decomposition and Use as Green Manure, 110  
 Control of Soil Washing, 92  
 Co-operative Experiments of the Department of Agronomy (two bulletins), 91  
 Crop Rotations for Missouri Soils, 77  
 Cropping Systems and Soil Fertility, 98  
 Cropping Systems in Relation to Erosion Control, 84  
 Development of Loessial Soils in Central United States as It Reflects Differences in Climate, 120  
 Drainage Investigations on the Northeast Missouri Prairie, 74  
 Drilling Fine Limestone for Legumes, 84  
 Drilling Limestone for Legumes, 87  
 Effect of Slope on Soil Erosion, 121  
 Effect of the Amount and Nature of Exchangeable Cations on the Structure of a Colloidal Clay, 108  
 Effect of the Degree of Slope and Rainfall Characteristics on Runoff and Soil Erosion, 116  
 Erosion and Surface Runoff Under Different Soil Conditions, 104  
 Evaluating Annual Changes in Soil Productivity, 86  
 Exchangeable Bases of Two Missouri Soils in Relation to Composition of Four Pasture Species, 122  
 Experimental Studies on the Development of Heavy Claypans in Soils, 113  
 Fertility of the Soil, 92  
 Fertilization, 69  
 Fertilizer Recommendations for Spring and Summer Crops, 1944, 140  
 Fertilizer Trials—Wentzville Experiment Field (Putnam Silt Loam), 76  
 Fertilizers for Fall Sown Crops, 140  
 Fertilizers for Wheat, 123  
 Grass Investigations in the Ozark Upland, 74  
 Guide for Agronomic and Soil Conservation Planning in Missouri, 143  
 Handling Barnyard Manure, 124  
 Handling Farm Manure, 76, 131  
 Home Grinding Limestone, 134  
 How to Choose a Commercial Fertilizer, 126  
 How to Use Agricultural Limestone, 129  
 Influence of Systems of Cropping and Methods of Culture on Surface Runoff and Soil Erosion, 110  
 Inoculation for Legumes, 94  
 Inoculation of Legumes, 82  
 Investigations in the Use of Nitrate of Soda for Field Crops, 83  
 Keeping Soils Productive, 93  
 Legume Bacteria With Reference to Light and Longevity, 108  
 Legume Inoculation, 81  
 Liming Materials, 126, 127  
 Liming Missouri Soils, 97, 126  
 Magnesium as a Factor in Nitrogen Fixation by Soybeans, 117  
 Mangum Terrace, 93  
 Manures and Fertilizers, 71  
 Measuring Annual Changes in Soil Productivity, 142  
 Methods of Incorporating Organic Matter With the Soil in Relation to Nitrogen Accumulations, 115  
 Mineralogical and Chemical Studies of Soil Formation From Acid and Basic Igneous Rocks in Missouri, 121  
 Mineralogical and Chemical Studies of the Putnam Silt Loam Soil, 122  
 Missouri Fertilizer Law, 92, 94, 95  
 Missouri Soil Survey, 93  
 Mulching, 69  
 Nitrate Nitrogen in the Soil as Influenced by the Crop and the Soil Treatments, 115  
 Nitrate Production in Soils as Influenced by Cropping and Soil Treatments, 117  
 Nitrogen Fixation and Soil Fertility

- Exhaustion by Soybeans Under Different Levels of Potassium, 119
- Nitrogen Fixation, Composition and Growth of Soybeans in Relation to Variable Amounts of Potassium and Calcium, 122
- Package Fertilizer and the Missouri Fertilizer Law, 95
- Physico-Chemical Properties of Soils Affecting Soil Erosion, 113
- Principles of Maintaining Soil Fertility, 91
- Proceedings of the First Missouri Conference on Land Utilization, 82
- Rapid Soil Tests for Estimating the Fertility Needs of Missouri Soils, 86
- Relation of Dew to Soil Moisture (two bulletins), 69
- Relation of Phosphorous to Growth, Nodulation, and Composition of Soybeans, 114
- Relation of the Degree of Base Saturation of a Colloidal Clay by Calcium to the Growth, Nodulation, and Composition of Soybeans, 114
- Relation of Tillage to Soil Moisture, 69
- Rural Education: The Soil, 17, 65
- Sanborn Field: Fifty Years of Field Experiments With Crop Rotations, Manure, and Fertilizers, 88
- Soil Building Practices in the Agricultural Conservation Program, 142; 1939, 142; 1940, 142
- Soil Conservation in an Improved Agriculture, 84
- Soil Erosion in Missouri, 84
- Soil Experiments on the Brown Silt Loam of the Ozark Border Region (Soil Type—Union Silt Loam), 78
- Soil Experiments on the Dark Prairies of Central and Northeast Missouri (Soil Type—Grundy Silt Loam), 74
- Soil Experiments on the Gravelly Ozark Upland (Soil Type—Clarksville Gravelly Loam), 78
- Soil Experiments on the Gray Prairie of Southwest Missouri (Soil Type—Cherokee Silt Loam), 75
- Soil Experiments on the Level Prairies of Northeast Missouri (Soil Type—Putnam Silt Loam), 74
- Soil Experiments on the Ozark Upland (Soil Type—Gerald Silt Loam), 75
- Soil Experiments on the Prairie Silt Loam of Southwest Missouri, 73
- Soil Experiments on the Red Limestone Upland of Southwest Missouri (Soil Type—Crawford Silt Loam), 75
- Soil Experiments on the Rolling Glacial Land of North Missouri (Soil Type—Shelby Loam), 74
- Soil Experiments on the Rolling Limestone Upland of Southwest Missouri, 73
- Soil Experiments on the Upland Loam of Southeast Missouri (Jefferson County), 72
- Soil Fertility Investigations:  
Brown Limestone Land of Southwestern Missouri (Newtonia Experiment Field), 85  
Rolling Prairie Land of Southwestern Missouri (Eldorado Springs Experiment Field), 86
- Soil Fertility Losses Under Missouri Conditions, 82
- Soil Improvement by the Missouri Plan, 126
- Soil Inoculation for Legumes, 93
- Soil Investigations—Jasper County Experiment Field, 74
- Soil Management in the Ozark Region, 73
- Soil Treatment for Alfalfa, 134
- Soil Treatment to Improve Permanent Pastures, 100
- Soils and Fertilizers (in two parts), 70
- Soils and Soil Fertility for Alfalfa, 139
- Soils and Soil Fertility for Soybeans, 140
- Soils Experiment Fields of Missouri, 79
- Soils of Audrain County, Missouri, 73
- Soils of Missouri, 76, 80
- Soils of Sullivan County, Missouri, 73
- Soils of the Ozark Region, 100
- Soybeans and Soil Conservation, 89
- Study of Some Chemical and Physical Properties of the Clay Minerals Nontronite, Attapulgite, and Saponite, 121
- Study on the Influence of Climate Upon the Nitrogen and Organic Matter Content of the Soil, 109
- Subsoiling, 69
- Testing Soils for Acidity by the Modified Comber Method, 128, 133
- Thirty Years of Field Experiments With Crop Rotation, Manure, and Fertilizers, 77
- Time of Harvesting Soybeans in Relation to Soil Improvement and Protein Content of the Hay, 81
- Use of Green Manures in Soil Improvement, 131
- Use of High Analysis Fertilizers, 131
- Using Limestone on Missouri Soils, 133, 135
- Value of Farm Manure, 98
- Wartime Fertilizer Information (two bulletins), 89
- Wartime Recommendations on the Use of Commercial Fertilizer, 98
- See also* Field Crops and Horticulture and Forestry

### Spanish and Spanish-American Language and Literature

Construction of Object Pronouns in the  
Works of Modern Spanish Writers, 8  
Life and Works of Manuel Gutiérrez  
Nájera, 7

### Veterinary Science

Actinomycosis (Lump Jaw, Big Jaw,  
and Wooden Tongue) in Cattle, 77, 84  
Bighead or Light Sensitization in Sheep  
and Lambs, 135  
Black Leg: Gaseous Charbon, Sympto-  
matic Anthrax, Bacterian Anthrax, 70  
Blackhead in Turkeys—Surgical Con-  
trol by Cecal Abligation, 108  
Coccidiosis in Chickens and Other Birds,  
85, 86  
Coccidiosis in Fowls, 81  
Common Internal and External Para-  
sites of Poultry, 89  
Common Internal Parasites of Poultry,  
128  
Common Parasites of Farm Animals:  
Their Prevention and Treatment, 94  
Common Parasitic Worms of Poultry,  
128  
Contagious Pleuro-Pneumonia, 69  
Control of Bang's Disease in Missouri,  
85  
Control of Fowl Pox, 137  
Control of Hog Cholera, 123  
Essentials of Poultry Sanitation, 138  
Generalities and Experiments in Spray-  
ing Cattle, 70  
Glanders, 69  
Glanders, Mad Itch of Cattle, 69  
Hog Cholera, 89  
Hog Cholera and Immature Corn, 76  
Immunization of Swine Against Hog  
Cholera, 91  
Important Facts Concerning Bang's  
Abortion Disease in Cattle, 132  
Infectious Abortion in Swine, 77  
Internal Parasites of Sheep, 88  
Leukemia in Fowls, 81  
Limberneck (Botulism) in Fowls, 97  
Mastitis: Diagnosis and Control, 135  
Mold Diseases of Chickens and Turkeys,  
89  
Paralysis of Hind Quarters in Swine, 125  
Practical Control of Infectious Abor-  
tion in Cattle, 78  
Pregnancy Disease in Sheep, 83, 86

Prevention and Eradication of Infec-  
tious Abortion in Cattle, 81  
Report of the State Veterinary Inspector,  
69  
Roup in Fowls, 77  
Stomach Worms in Sheep, 125  
Studies on the Origin and Transmission  
of Fowl Paralysis by Blood Inocula-  
tion, 118  
Studies on the Pathology and Physiology  
of the Cecal Pouches of Turkeys, 108  
Swine Erysipelas, 138  
Texas Fever, 71  
Texas Fever and Other Diseases, 69  
Texas Fever: Immunizing Northern  
Breeding Cattle for the Southern  
Trade, 71; Investigations Between  
September 1888 and March 1890, 70  
Treatment of Common Parasites Affect-  
ing Farm Animals, 123  
Trichomoniasis of Turkeys, 88  
Tuberculosis of Poultry, 84  
Ulcerative Enteritis in Quail, 119  
White Diarrhea in Chickens, 125

### Wild Life Conservation

Feeding Stations and Shelters for Quail  
on Missouri Farms, 134, 136  
Improvement of Farm Ponds and  
Watersheds for Erosion Control and  
Wildlife Production, 134, 135  
Improving Food and Cover for Wildlife  
on Missouri Farms: I. Trees and  
Shrubs, 133, 135  
Survey of the Resident Game and Fur-  
bearers of Missouri, 9

### Zoology

Check-List of the Birds of Missouri, 8  
Evolutional Zoology, 66  
Experimental Zoology, 66  
Implantation of the Glochidium on the  
Fish, 66  
Pocket Gopher and How to Control It,  
127  
Regeneration of Crayfish Appendages, 11  
Spermatogenesis of Anax Junius, 11  
Study of Factors Influencing Chromo-  
somal Segregation in Translocations  
of *Drosophila Melanogaster*, 114  
Translocations in *Sciara*: Their Bear-  
ing on Chromosome Behavior and Sex  
Determination, 122



















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